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This annotated bibliography dealing with adult learning characteristics contains 82 indexed and abstracted entries arranged under the following headings: (1) Mental and Perceptual Abilities, (2) Personality and Social Role Factors, and (3) General Bibliographies. Intelligence, intelligence tests, memory and retention, adult development, older adults, disadvantaged groups and others are covered in these abstracts, most of which are dated from 1966-68. (author)

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ERIC CLEARINGHOUSE ON ADULT EDUCATION

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# Adult Learning Characteristics

CURRENT INFORMATION SOURCES, NO. 21

November, 1968

ERIC CLEARINGHOUSE ON ADULT EDUCATION

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# ADULT LEARNING CHARACTERISTICS, CIS-21

## ABSTRACT

This annotated bibliography dealing with adult learning characteristics contains 82 indexed and abstracted entries arranged under the following headings: 1) Mental and Perceptual Abilities, 2) Personality and Social Role Factors, and 3) General Bibliographies. Intelligence, intelligence tests, memory and retention, adult development, older adults, disadvantaged groups and others are covered in these abstracts, most of which are dated from 1966 - 1968.

November 1968

# PREFACE

These abstracts represent documents entering the ERIC Clearinghouse on Adult Education during the past year which relate to the characteristics of adult affecting their learning and achievement. Many of these documents have been announced in Research in Education, the monthly catalog of the Educational Resources Information Center. This catalog, covering the entire range of educational literature, may be obtained from the U.S. Government Printing Office, Washington, D.C. 20402, for $21 per year, ($26.25 foreign). Many of the documents listed here may be obtained in inexpensive microfiche or hardcopy reproduction from the ERIC Document Reproduction Service. Please read carefully the note on availability of documents.

The documents reported here relate directly to the characteristics or capacities which adults bring to the learning situation. Learning methods and other aspects of the learning situation are covered in other publications in this series. We have attempted the following rough classification, but recommend that the entire list be scanned if all relevant documents need to be found.

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# NOTE ON THE AVAILABILITY OF DOCUMENTS

Many documents with an EDRS number (e.g. ED 010 246) are obtainable from the ERIC DOCUMENT REPRODUCTION SERVICE (EDRS), The National Cash Register Company, 4936 Fairmont Avenue, Bethesda, Maryland 20014. For example, "EDRS Price MF-$0.50 HC-$3.52" indicates that the relevant documents may be obtained from EDRS in microfiche (MF)for 50 cents, or in printed out hard copy (HC) for $3.52.

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Abstracts of reports and other documents from the 19 ERIC Clearinghouses appear in Research in Education, a monthly publication of the Office of Education, U.S. Department of Health, Education, and Welfare, Government Printing Office, Washington, D.C. 20402. Domestic $21.00 a year; foreign, $26.25 a year.

All other documents must be obtained from the indicated original source. If it is impossible to obtain a document from the originating source, help may be obtained from the ERIC Clearinghouse on Adult Education, 107 Roney Lane, Syracuse, New York 13210.

## A. MENTAL AND PERCEPTUAL ABILITIES

AC 001 832 E
ED 015 413

BIBLIOGRAPHY, LEARNING AND COGNITIVE PERFORMANCE IN ADULTS. Kuhlen, Raymond G., comp. * and others, comps. Syracuse Univ., N.Y. Adult Development Study. Proj-6-1963 67 OEG-1-7-06193-0149 EDRS PRICE MF-$0.50 HC-$4.32 108p.

TERMS: *adult learning, *learning processes, *age differences, *intelligence, *bibliographies, testing, task performance,

ABSTRACT: This retrospective bibliography of over 1,500 items is largely devoted to various types of adult learning and cognitive behavior (conditioning, skill learning, discrimination, verbal learning, problem solving and complex behavior, memory, verbal behavior, and set), to studies on intelligence and test behavior (age changes, correlational and factor analytic research, vocabulary, biological intelligence, psychomotor tests, and populations with organic and functional disorders), and to the effects of aging on perception. Also represented are studies of reaction time, achievement and productivity, and education and industrial training, together with psychophysiological research, methodological problems in aging research, and books and literature reviews. (ly)
SECONDARY TERMS: perceptual motor learning, physical characteristics, industrial training, academic education, research methodology, verbal learning, factor analysis,

AC 001 107 E
ED 012 846

LEARNING IN ADULTHOOD, THE ROLE OF INTELLIGENCE (Chapter 8 in ANALYSES OF CONCEPT LEARNING, edited by Herbert J. Klausmeier and Chester W. Harris. New York, Academic Press, 1966/117-138). Bayley, Nancy. 66 DOCUMENT NOT AVAILABLE FROM EDRS 20p.

TERMS: *sex differences, *age differences, *intelligence, *adult learning, verbal ability, nonverbal ability, research, longitudinal studies,

ABSTRACT: In the longitudinal Berkeley Growth Study, subjects were tested at 16, 18, 21, and 26 years on the Wechsler-Bellevue, and at 36 years on the Wechsler Adult Intelligence Scale, which contain both verbal and non-verbal subscales. The most consistent increases in mean scores over the period were in information, vocabulary, and comprehension. Digit span and arithmetic scores leveled off, and women's scores on several tests declined after age 26. Test-retest correlations during ages 16-26 were more consistent among men than among women, most notably in vocabulary and information, less so in similarities, digit span, and block design. By contrast, childhood scores of males were less stable than those of females, suggesting sex-linked, differently-timed intelligence factors influencing adult mental performance. Finally, at age 36, men seemed to be achieving closer to capacity than women. It was concluded that motivation, drive, and time, rather than small variations in intelligence, might be the important determiners for learning in adults. (Document includes 22 references, five charts, and a brief research review) (ly)
SECONDARY TERMS: intelligence quotient, intelligence tests, adult characteristics, cognitive ability, educational background, socioeconomic influences, intelligence differences, achievement, Berkeley Growth Study, Wechsler Bellevue Test, Wechsler Adult Intelligence Scale, California, Terman Concept Mastery Test,

AC 000 122 E　A REVIEW OF EFFORTS TO ORGANIZE INFORMATION ABOUT HUMAN LEARNING, TRANSFER, AND RETENTION. Ginsberg, Rose * and others San Jose State College, Calif.
ED 017 761　AF-33(615)-2951 Aerospace Medical Research Labs., Wright-Patterson AFB, Ohio Proj-7907 Task-790701 AD-635-491
Mar 66 DOCUMENT NOT AVAILABLE FROM EDRS.

TERMS: *learning, *research reviews (publications), *retention, *transfer of training, *taxonomy, learning theories,

ABSTRACT: Fourteen efforts to organize available information on human learning, transfer, and retention are summarized and evaluated on six criteria--behavioral significance of categories, scope, objectivity and reliability of categories, prognosis for the system. Attention is given to other sources of guidance for organizing information on human learning. The review indicates at least six major approaches to a taxonomy of human learning--(1) theoretical factors, (2) conditions of learnings, (3) individual differences, (4) physical characteristics of learning tasks, (5) task characteristics in relation to empirical variables, and (6) task characteristics in relation to learning principles. In some cases the approaches are combined. The major conclusion is that although some contributions have been made to a general organization of information on human learning, intense and detailed efforts toward a comprehensive taxonomy are only in a preliminary formative phase. An empirically grounded and logically sound taxonomy of a wide range of learning situations will contribute substantially to the use of existing information and to the guidance of future research. This document, AD 635 491, is available from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151. Microfiche $.65 Hardcopy $3.00 40 pages. (author/pg)

SECONDARY TERMS: evaluation, task analysis,

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AC 002 743 I　DIFFERENCES BETWEEN ADULTS AND YOUTH AFFECTING LEARNING. Zahn, Jane C. DOCUMENT NOT AVAILABLE FROM EDRS. In Adult Education; v17 n2 p67-77 Win 1967 11p.

TERMS: *ADULT LEARNING; *AGE DIFFERENCES; *INTELLIGENCE; *BEHAVIOR CHANGE; *TEACHING METHODS; RESEARCH REVIEWS

ABSTRACT: In cross-sectional studies comparing intelligence in adults with that in youth, decline in intelligence is observed as age increases. More meaningful comparisons, in longitudinal studies, show no decrease in intelligence, and, in some cases, an increase. When learning ability was measured without strict time limits, it did not decline between 20 and 60 years of age. Performance on tests varies, older persons doing better on vocabulary tests; the number of years of formal schooling influences performance, as do health and physical differences. It is more difficult to change the perceptions of an adult than of a child because the adult has had more prior experience. However, if adults learned how to learn when young and continued their learning in adulthood, the habit of learning is so strong and the strategy of learning so well developed that learning new material will be even easier for them than for children. Methods of teaching the young cannot be transferred without change to teaching adults; teachers will need patience to allow for the extra time and extra teaching skill necessary. (eb)

AC 001 531JI INTELLIGENCE, WHY IT GROWS, WHY IT DECLINES (In TRANSACTION, 5(1)/23-31, Nov 1967). Horn, John L. Nov 67 9p.

TERMS: *intelligence, *intelligence factors, *intellectual development, mental development, intelligence differences, cognitive ability, comprehension,

ABSTRACT: Intelligence is of two types, fluid and crystallized, both composed of more elementary mental abilities which can explain much of the person-to-person variation commonly observed in mental processes. Fluid intelligence is defined by such abilities as induction and seeing figural relations (natural wit). Crystallized intelligence is demonstrated by acquired strategies such as verbal comprehension. Mental development requires three processes --(1) anlage function, which provides the physical base for mental growth, (2) acquisition of aids, which involves the use of experience, and (3) concept formation which is imposing categories on the phenomena we experience. Tests that indicate the extent of concepts formed may predict the level of a person's future intellectual development. Because schools give awareness of concepts that first-hand experience may not give, education can play a powerful role in developing intelligence. Yet formal education often does not. Avoidance learning labeling, and lack of opportunity affect development of both kinds of intelligence. The physiological base supporting fluid intelligence begins to decline in the 20's, but acculturation supporting crystallized intelligence continues into old age. Because both work together, evidence indicates the greatest intellectual productivity tends to occur in the 30's and early 40's, although the most creative work is often accomplished earlier. (rt)

SECONDARY TERMS: verbal ability, experience, concept formation, acculturation, productivity, physiology, age differences,

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AC 000 846 I THE RELEVANCE OF PSYCHOLOGY FOR ADULT EDUCATION. McClusky, Howard DOCUMENT NOT AVAILABLE FROM EDRS. In the Proceedings of the National Conference of the Canadian Association for Adult Education, Sep 15-17, 1966 13p.

TERMS: *ADULT LEARNING; *DEVELOPMENTAL PSYCHOLOGY; *ADULT CHARACTERISTICS; *AGE DIFFERENCES; ABILITY; PERCEPTION; SET THEORY; INDIVIDUAL DIFFERENCES

ABSTRACT: Part of a report on the 1966 national conference of the Canadian Association for Adult Education, this paper reviews several important theories and aspects of adult learning: the concept of differentiation (diversification of attitudes, abilities, and other characteristics during adulthood); habit (or set) and selective response; integration (the selective incorporation of new stimuli); time perception; and the problem of adequately measuring adult learning ability at different ages. The document includes a bibliography of 74 items on aging, individual differences, and related aspects of adult learning. (ly)

AC 002 495 I THE NATURE OF HUMAN INTELLIGENCE. Guilford, J.P. DOCUMENT NOT AVAILABEE FROM EDRS. Available from McGraw-Hill Book Company, 330 West 42nd St., New York, N.Y. 10036 ($14.75). 538p. 67

TERMS: *INTELLIGENCE; *THEORIES; *DEVELOPMENTAL PSYCHOLOGY, *RESEARCH; INTELLIGENCE TESTS; PERCEPTION; LEARNING PROCESSES; PROBLEM SOLVING; CREATIVITY; PHYSIOLOGY; BIBLIOGRAPHIES; ENVIRONMENTAL INFLUENCES; AGE DIFFERENCES; MEMORY Jean Piaget

ABSTRACT: The aim of this work is to give the concept of intelligence a firm, comprehensive, and systematic theoretical foundation and to put intelligence within the mainstream of general psychological theory. Following a short history of intelligence testing and discussion of the historical conception of intelligence as the ability to learn, the author outlines and develops a theory of intelligence which he calls the structure of intellect (SI). This theory, which has been under experimental examination during the past 12 years, grew out of applications of the multivariate method of multiple-factor analysis. Implications from the theory and its concepts have led to new interpretations of already-known facts of general significance in psychology. Other chapters provide discussion of the empirical foundation of the SI theory, (including age levels of populations within which analyses have shown some of the factors); implications of the operational-informational type of psychology, to which SI theory leads, to phenomena encountered in the areas of perception, learning, retention, recall, problem solving, and creative production; physical bases (including heredity and the brain and its functions) and environmental determiners of status on intellectual abilities; and development of SI abilities, decline of abilities with age, and implications for testing and education. Links with Jean Piaget's views are pointed out. An extensive bibliography is included. (aj)

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AC 002 832 JI THE RELATIONSHIP BETWEEN LEARNING AND INTELLIGENCE. Carver, Ronald P.; DuBois, Philip H. Washington Univ., St. Louis, Mo. Nonr-816(14) DOCUMENT NOT AVAILABLE FROM EDRS. In Journal of Educational Measurement; v4 n3 p133-6 Fall 1967 4p.

TERMS: *LEARNING; *INTELLIGENCE; *RESEARCH; *VERBAL ABILITY; *ACHIEVEMENT GAINS

ABSTRACT: The General Classification Test (a measure of verbal intelligence) and a battery of seven learning tests were given to 269 U.S. Navy enlisted men. Two of the learning tests involved initial and final measures on programed instructional materials; the others tested various kinds of verbal and nonverbal learning. Correlations between intelligence and residual gain scores and between verbal ability and verbal learning were interpreted as negating the generalization that learning and intelligence are unrelated when a gain measure of learning is used. (The document included one table and four references.) (ly)

AC 001 575 I HUMAN MEMORY. Adams, Jack A. McGraw-Hill, New York. 67
336p. illus. Index. Bibliogs.

TERMS: *learning processes, *retention, *psychometrics, *research reviews, theories, performance factors, recognition, recall (psychological),

ABSTRACT: This survey of recent experimental research on human memory takes the point of view that the proper domain of memory research is not performance at the retention test, but retention performance as it reveals something about the memory states which have survived over the retention interval and which underlie the basic capability to respond. Definitions of memeory are given, together with major distinctions between learning and performance. Three theories of the forgetting process (trace decay, trace transformation, interference), and differences between short term and long term memory, are examined. Also discussed are the laws of verbal interference (effects of one activity on the retention of another), serial recall of verbal responses in short term memory, free recall of random and organized verbal responses, recall of verbal responses in long term memory, recall of motor responses, and recognition memory (identification of stimuli or responses that have occurred before). Finally, a feedback theory of verbal learning is outlined that combines the memory trace--the conventional notion of habit which bonds stimulus and response--with the perceptual trace from response produced stimulus. (The document includes an index, seven tables, 32 charts and diagrams, and extensive chapter references) (ly)

SECONDARY TERMS: paired associate learning, clustering, chunks, verbal learning, perceptual motor learning, time factors (learning), motivation, reinforcement, research methodology, feedback, measurement instruments,

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AC 002 022 E EFFECTS OF STRUCTURE AND SEQUENCE ON ADULT LEARNING. Paper presented at
ED 017 811 the National Seminar on Adult Education (Chicago, February 11-13, 1968).
Groteleuschen, Arden Columbia Univ., New York Teachers College 68
EDRS PRICE MF-$0.25 HC-$0.88 20p.

TERMS: *adult learning, *number systems, *instructional materials, *teaching techniques, *sequential approach, research, programed instruction,

ABSTRACT: In this study on the effects of structure and sequence on adult learning, 96 adults unfamiliar with number bases and ranging in age from 23 to 53 were randomly assigned to four differentially structured introductory materials (history of measurement, base ten, base seven, or principles of number bases) and to three differentially sequenced learning task conditions (random, partial or complete) within four intelligence and two sex categories. Subjects were individually presented the base four task in paired associate form after they had received the programed introductory material. The introductory material appeared to have significantly positive results only with subjects having superior intelligence. The completely sequenced learning task resulted in a more rapid mastery of the learning task, especially with less intelligent subjects. Reliable differences among the intelligence categories and between the sexes were also observed. (Also included are charts, tables, and 17 references.) This paper was presented at the National Seminar on Adult Education Research, Chicago, February 11-13, 1968. (author/ly)

SECONDARY TERMS: intelligence, individual characteristics, age differences, time factors (learning), test results, analysis of variance, statistical data, sex differences, Wechsler Adult Intelligence Scale,

AC 001 649 E DIFFERENTIALLY STRUCTURED INTRODUCTORY LEARNING MATERIALS AND LEARNING
ED 016 148 TASKS. Grotelueschen, Arden. Columbia Univ., New York. Teachers College.
BR-6-2447 U.S. Office of Education. Bureau of Research. OCT 67 OEG-1-7-002447/2C
EDRS PRICE MF-$1.00 HC-$10.04 251p.

TERMS: *adult learning, *number concepts, *intelligence level, *paired associate learning, *sequential approach, learning theories,

ABSTRACT: An attempt was made to assess the effects on adult learning of differentially structured introductory cognitive learning tasks and materials, and the interaction of intelligence with the experimentally manipulated material and task categories. About 96 adults who were unfamiliar with the concept of number bases were classified according to a 4x3x4 factorial design. During individual sessions, the learner, classified by intelligence level, was given a programed booklet on one of four structural learning materials randomly assigned. Upon completion, the learner was given a learning task, by teaching machine, under an experimental condition consisting of three differentially sequenced sets of paired associates, corresponding to numbers in the base four number system. The number of trials required, total errors, and posttest scores served as measures of the effectiveness of the experimental conditions. Intelligence was positively related to task performance, complete task sequencing led to more rapid learning than did partial sequencing, introductory materials were especially useful with the more intelligent adults, completely sequenced learning tasks were evidently most beneficial with the less intelligent adults, and men consistently outperformed women, particularly in applying number base principles. (ly)

SECONDARY TERMS: number systems, teaching machines, intelligence, programed instruction, programed texts, task performance, sex differences, effective teaching, textbook content, mathematics, sequential learning, cognitive processes, time factors (learning),

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AC 000 495 E PSYCHOLOGICAL FOUNDATIONS OF ADULT EDUCATION (University Extension
ED 011 625 Bulletin, 5). Schwartz, Milton M. * Lanyon, Richard I. Rutgers. The
State Univ., New Brunswick, N.J. Univ. Extension Division. 66
EDRS PRICE MF-$0.25 HC-$0.68 17p.

TERMS: *adult learning, *motivation, *learning theories, *psychological needs, *need gratification, learning motivation, research reviews,

ABSTRACT: Two papers are included in this bulletin. The Milton Schwartz paper, "Theories of motivation and their application to adult education," surveys the thinking, research, and conclusions of some of the leading figures concerned with social motivation. It attempts to classify these theories by generating a 2 dimensional schema of social motivation. The horizontal continuum includes positive-striving theories on one end and need-reduction views on the other. The vertical continuum puts achievement motivation on one end and affiliation-comfort needs on the other. An attempt is made to demonstrate the utility of the schema through examples from statements of adult education students. Richard Lanyon, in "Psychological learning theory, application to adult education," reviews some of the major thinking of scholars in the field of animal learning (crucial factors of amount of practice and reinforcement), examines findings in the field of human verbal learning (added crucial factors of meaningfulness and organization of materials), and then summarizes applications of these principles to education. The teaching machine is described as making direct use of these important principles of learning and suggestions are made for application in regular classroom teaching. (eb)

SECONDARY TERMS: taxonomy, affiliation need, achievement need, status need, verbal learning, programed instruction, AC 000 808 I TEACHING AND LEARNING IN ADULT EDUCATION. Miller, Harry L. 64 345p.

TERMS: *Adult education, *adult learning, *educational methods, *group instruction, *guides, individual instruction, programed instruction, independent study, small group instruction, leadership styles, educational television, large group instruction, mass media, residential programs, group discussion, evaluation techniques, audience participation, Metroplex Assembly, Chicago TV College,

ABSTRACT: In this guide to learning and teaching in adult education, various educational principles, kinds of learning, and methods and techniques are examined. Chapters 1 and 2 survey basic learning processes, types of behavior change, educational aims and methods, and crucial conditions for learning (chiefly motivation, awareness of needs and goals, practice, and a sequence of appropriate materials). Concept attainment, problem solving, and other significant kinds of behavior change are explained in the third chapter. Uses of small group techniques in classrooms, residential programs, and informal group discussion are covered in the next three chapters. The remainder of the book discusses programed instruction, correspondence study and other methods and resources for individual study, the role of television and other mass media in formal and informal adult education, and evaluation techniques and processes. The document includes an index and chapter notes. It is available from the Macmillan Company, New York. (ly)

AC 001 080 C HOW AND WHY PEOPLE LEARN, AN EXPERIMENT IN PROGRAMMED INSTRUCTION, AN EXPLANATION OF LEARNING PRINCIPLES FOR LEADERS OF ADULT GROUPS. (3d edition). Waite, Naida. Canadian Association for Adult Education, Toronto. 69p.

TERMS: *learning processes, *adult learning, *retention, *study skills, rote learning, thought processes, learning motivation,

ABSTRACT: Reports of research experiments and studies as well as experiences of teachers and trainers formed the basis for this programed text on the learning process, with special reference to adult education. The four parts--(1) motivation, (2) perceiving, attending, observing, (3) remembering, forgetting, principles of learning, and (4) miscellaneous facts and ideas about learning--are arranged in a self-correcting workbook fashion. Three final tests with answers are given. (sg)

AC 001 124 E TRAINING IN INDUSTRY, THE MANAGEMENT OF LEARNING (Behavioral Science
ED 012 848 in Industry Series). Bass, Bernard M. * Vaughan, James A. 66
DOCUMENT NOT AVAILABLE FROM EDRS 177p.

TERMS: *industrial training, *management education, *learning processes, *training techniques, program administration, program content,

ABSTRACT: The principles of learning behavior derived through laboratory study can be extended to explain much of the complex learning required in industrial training programs. A review of the basic principles of human learning introduces four basic concepts-- drive, stimulus, response, and reinforcer--and discusses classical and instrumental conditioning and higher forms of learning. The strategy of training involves three steps--(1) statements of the content of the training program, characteristics of the learner and his environment, the over-all organizational climate, and the relation of training to company goals, (2) decisions about how and by whom the content will be taught, including discussion of both current industrial training techniques and promising innovations and the extent to which they conform to the principles of learning, and (3) administration and evaluation of the training program. Training needs and the effectiveness of training programs must be assessed continuously in a carefully designed and executed research program. (This document is available from Wadsworth Publishing Company, Inc., Belmont, California.) (aj)
SECONDARY TERMS: program evaluation, adult learning, individual characteristics, instructional technology, program planning, learning theories, educational needs, training objectives, teaching methods, evaluation techniques,

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AC 001 255 I TEACHING PAIRED ASSOCIATES, THE PROBLEM OF AGE (IN Occupational psychology, 40/67-74, 1966). Belbin, Eunice * Downs, Sylvia. Univ. College, London, England, Res Unit into Problems of Indust. Retraining. 66 8p.

TERMS: *paired associate learning, *teaching methods, *sorting procedure, *adult learning, *age differences, educational research, deduction, programed instruction, educational experiments, young adults,

ABSTRACT: To determine the best method of teaching a paired associates task (manual postal sorting) to young adults (20-34) and mature adults (35-49), within a time limit, unskilled and semiskilled volunteers used four methods of learning--linear programing, list (memorizing), activity (learning by doing) and deduction (activity and linear program). The effectiveness of each method was tested by an activity or written test. It was found that younger persons had superior test results in list, programed, and activity learning. When deduction was introduced, older subjects had scores comparable to the younger. (pt)

AC 001 541 E PSYCHOLOGICAL RESEARCH IN CLASSROOM LEARNING (Report on a conference
ED 017 793 at the Bromwoods Residential Center, Washington University, St. Louis,
Mo.). Wientge, King M., ed. * and others. Washington Univ., St. Louis,
Mo. School of Continuing Educ. R-Pub-11 67 OEC-3-7-061134-1532
EDRS PRICE MF-$0.50 HC-$5.04 126p.
TERMS: *adult learning, *educational psychology, *classroom environment, *instructional technology, *evaluation, research, higher

ABSTRACT: Papers were presented at a conference on classroom learning on such topics as program design, testing and other evaluation techniques, computer assisted instruction, programed instruction, simulation, pacing, and retention. Several treated military training, adult learning, and adult-centered classroom techniques. In one paper, the systems approach to adult learning was predicated on the application of engineering logic in formulating objectives, identifying and allocating functions, and planning for operation of the system and system testing. Another study compared the performance of Navy trainees in radar and radar navigation technology as measured at four points in the training sequence. One retention study compared programed and conventional instruction in a Navy technical course. Attitudes of instructors, training administrators, and Navy and Marine enlisted men toward programed instruction were surveyed at eight aviation technical training schools. A study of elective participation is currently being made. (The document includes tables, diagrams, and a background paper.) (These papers were presented at a conference held at the Bromwood Residential Center, Washington University, St. Louis, Missouri) (ly)
SECONDARY TERMS: education, military training, flight training, aerospace technology, classroom techniques, classroom participation, simulation, pacing, systems approach, testing, measurement instruments, units of study (subject fields), retention, statistical

AC 001 583JI ACHIEVEMENT AS A FUNCTION OF STUDY TIME (In AMERICAN EDUCATIONAL RESEARCH JOURNAL 4(4)/337-343, nov 1967). Sjogren, Douglas D. 9p.
TERMS: *learning theories, *research, *adult learning, *time factors (learning), research methodology, models, achievement, Carroll,

ABSTRACT: Data obtained from a sample of adults in a learning experiment were used to test Carroll's model of school learning, in which the degree of learning is postulated to be a function of the ratio of time taken in the learning situation to time needed by the learner. The 208 participants were classified by age, socio-economic status, sex, and previous participation in adult education activities. A 100-frame program was presented in a constant time condition. It was found that ratios did have a significant linear relationship with measures of learning, two achievement tests, and with the WAIS aptitude test. (author/pt)

AC 002 368 E STRATEGY OF EVALUATION RESEARCH IN THE FIELD OF SUPERVISORY AND
ED 018 760 MANAGEMENT TRAINING. Hesseling, P. 66 DOCUMENT NOT AVAILABLE
FROM EDRS.
TERMS: *research methodology, *evaluation techniques, *management development,
*supervisory training, models, typology, industry, observation,

ABSTRACT: A description is given of concepts, methods, and a strategy to aid training officers and others responsible for programs of change in conducting evaluation studies involving systematic planning, control, and assessment of the process of change. Beginning with a model of perception and of its application to learning, the author discusses a typology of the learning process. The following research applications of this approach are discussed in separate chapters--structured training groups, ranking of personal qualifies, measuring the importance and image of departments, systematic observation methods, self recording of meetings, measuring control and involvement during training, interaction process analysis, a decision matrix, use of opinion scales, and measuring the communication process between departments in a simulated organization. The last two chapters deal with training officers as evaluators and with the organization of training research. The document includes appendixes, tables and figures, and 260 references. It is available from Royal VanGorcum Ltd. Assen, The Netherlands. 363 pages. (Sociology of Education abstracts/ly)
SECONDARY TERMS: rating scales, questionnaires, interviews, decision making, learning processes, simulation, communication (thought transfer), perception, case studies (education), T groups, interaction process analysis, systems analysis, meetings, trainers, on the job training, off the job training,

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AC 000 121 E THE FORGETTING OF INSTRUMENT FLYING SKILLS AS A FUNCTION
OF THE LEVEL OF INITIAL PROFICIENCY. Mengelkock, Robert
F. * and others U.S. Naval Training Device Center, Port
Washington, N.Y. NAVTRADEVCEN-71-16-18
AD-637-570 DOCUMENT NOT AVAILABLE FROM EDRS.
TERMS: *retention, *flight training, *time factors (learning),
*military training, *task performance, statistical data,

ABSTRACT: This study was designed to determine whether instrument flying skills are affected by a four-month interval of nonflying, and whether this effect differs as a function of initial flying proficiency. After equal classroom training, two matched groups of ROTC students, without previous flight instruction, were given a high and an intermediate amount of operational flight training, respectively. Following a four-month period without practice, they were tested for retention. The four-month interval without practice resulted in large decrements in the discrete procedural aspects of flight. In continuous flight control, forgetting occurred only occasionally and in amounts judged relatively insignificant by investigators. The differential effects of nonpractice on procedural versus flight control tasks were observed, even where both types of tasks were conducted simultaneously. In most instances there was no relationship between amount forgotten and initial level of flying proficiency. At the end of the interval, the high initial training group retained superiority over the intermediate group. (Practical application and research implications are discussed. The document includes 35 tables.) This document, AD 637 570, is available from the Clearinghouse for Federal Scientific and Technical Information, Springfield, VA. 22151. Microfiche $.65. Hardcopy $3.00. 124 pages. (ly)
SECONDARY TERMS: research,

AC 000294 COURSES OF MISRECALL OVER LONG-TERM RETENTION INTERVALS AS RELATED TO
ED 003 444 STRENGTH OF PRE-EXPERIMENTAL HABITS OF WORD ASSOCIATION. Bilodeau, Edward A.
Blick, Kenneth A. Tulane Univ. of Louisiana, New Orleans CRP-S-030 65
EDRS PRICE MF-$0.25 HC-$0.96 24p. Psychological Reports, Mono.
Suppl. 6-V16,1965,1173-1192pp.

TERMS: *learning, *learning theories, *stimulus behavior, *stimulus devices, *word recognition, associative learning, learning experience, learning processes, retention studies, time factors (learning),

THIS STUDY WAS MADE TO COMPARE THE EFFECTS OF STIMULATION AND NONSTIMULATION ON RECALL OF WORDS FOLLOWING TIME-DELAY PERIODS. THE SUBJECTS (670 AIRMEN) WERE TRAINED WITH AN EXAMPLE WORD LIST AND TWO WORD LISTS CONTAINING FIVE OF THE SECONDARY WORDS ASSOCIATED WITH RUSSELL-JENKINS STIMULUS WORDS. AFTER TIME DELAYS OF 2 MINUTES, 20 MINUTES, 2 DAYS, OR 20 DAYS, 24 GROUPS OF SUBJECTS WERE TESTED ON RECALL OF THE SECOND LIST. ON THE RECALL TEST, HALF OF THE SUBJECTS WERE GIVEN THE FIVE STIMULUS WORDS CORRESPONDING TO THE SECOND WORD LIST, AND HALF WERE NOT. THOSE SUBJECTS TESTED AFTER 20-DAY TIME DELAYS STILL SHOWED STRONG EVIDENCE OF THE WORD LIST TRAINING, BUT THE PERFORMANCE WAS MORE LIKE THAT OF FREE ASSOCIATING SUBJECTS THAN THAT OF SHORTER RETENTION SUBJECTS. IN THE NONSTIMULATED GROUP, INTRUSIONS FROM UNIDENTIFIED SOURCES WERE MORE NUMEROUS WHEN THE TIME PERIOD WAS LONGER. AS RECALLS OF WORDS ON LIST TWO DECREASED WITH TIME, INTRUSIONS OF WORDS FROM THE EXAMPLE LIST AND FROM THE FIRST TRAINING LIST WERE MORE NUMEROUS WHERE CULTURAL PROBABILITIES SUGGESTED THIS OUGHT TO HAPPEN. (AL)

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AC 002 419 I PERCEPTUAL SHORT-TERM MEMORY IN CHILDREN, RETARDATES AND ADULTS (In JOURNAL OF EXPERIMENTAL CHILD PSYCHOLOGY 5/114-122, 1967). Belmont, John M. 67
DOCUMENT NOT AVAILABLE FROM EDRS.

TERMS: *visual perception, *memory, *young adults, *institutionalized (persons), *age differences, research, low intelligence,

ABSTRACT: Five groups--20 institutionalized male retardates, three groups of normal school children including 15 12-year-olds, 16 10-year-olds, and 21 8-year-olds, and 15 male undergraduate psychology students--made delayed brightness comparisons over intervals ranging up to 14 seconds. Short term memory (STM) was indexed by the slope of the time error (TE) function. Pretesting involving six pairs of stimuli was presented to facilitate introduction of long stimulus intervals during tests. Testing followed immediately, in which participants received four blocks of 12 trials in two sessions. No perceptual STM differences were obtained among these groups. The only group differences were between retardates and normals at the two second delay, with retardates showing significantly better perception, but with less time error. All groups showed highly significant, parallel increases in negative TE over delays, suggesting that perceptual STM develops before age eight, and that retardates are not deficient in this kind of STM relative to either chronological or mental age matches. This article appeared in JOURNAL OF EXPERIMENTAL CHILD PSYCHOLOGY 5, 1967. 10 pages. (pt)

AC 002 876 I CYBERNETIC CONTROL OF MEMORY WHILE READING CONNECTED DISCOURSE.
ED 017 420 Frase, Lawrence T. Bell Telephone Labs., Inc. Murray Hill, N.J.
EDRS PRICE MF-$0.25 HC-$1.00 23p.
TERMS: *ADULTS; *READING; *RESEARCH; *CYBERNETICS; *MEMORY; MODELS; ORGANIZATION; STIMULUS BEHAVIOR; FEEDBACK

ABSTRACT:

A STUDY WAS CONDUCTED TO DETERMINE HOW ADULTS ADAPT TO DIFFERENT PASSAGE ORGANIZATIONS AND STIMULI WHICH PLAY A CRITICAL ROLE IN GOVERNING READING BEHAVIOR. A MODEL OF READING IS DESCRIBED WHICH STATES THAT SUBJECTS ENTER A MINIMAL SET OF STIMULI INTO MEMORY WHICH GOVERNS SUBSEQUENT FEEDBACK CONTROL, AND THAT SUBJECTS ALLOW PASSAGE ORGANIZATION TO ACT AS A SURROGATE STORAGE FOR EASILY RETRIEVED VERBAL UNITS. THE MODEL WAS TESTED IN AN ANALYSIS OF VARIANCE USING 24 COLLEGE-AGE FEMALES. SUBJECTS WERE GIVEN THE ATTRIBUTES OF A VERBAL CONCEPT AND TOLD TO FIND ITS NAME IN A READING PASSAGE. THEY WERE NOT INSTRUCTED TO LEARN THE MATERIALS. THE GROUP WHICH READ THE SENTENCES ORGANIZED BY CONCEPT NAME RETAINED MORE ATTRIBUTES THAN THE GROUP WHICH READ THE SAME SENTENCES ORGANIZED BY ATTRIBUTE. THE LATTER GROUP RETAINED MORE NAMES. THERE WERE NO SIGNIFICANT DIFFERENCES BETWEEN TREATMENTS IN TERMS OF TIME. IT WAS POSSIBLE TO PROGRAM MEMORY INPUTS SIMPLY BY REARRANGING THE SENTENCES. TABLES, FIGURES, AND REFERENCES ARE INCLUDED. (BK)

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AC 002 411 JI VISUAL AND AUDITORY INFORMATION PROCESSING IN CHILDREN AND ADULTS.
Carterette, Edward C.; Jones, Margaret Hubbard U.S. Office of Education, Washington, D.C. Cooperative Research Program Proj-1877 DOCUMENT NOT AVAILABLE FROM EDRS. In Science; v156 n3777 p986-8 May 19 1967 3p.
TERMS: *VISUAL PERCEPTION; *AUDITORY PERCEPTION; *VERBAL LEARNING; *CHILDREN; *ADULTS; RESEARCH; AGE DIFFERENCES; GRADE 1; GRADE 3; GRADE 5; ANALYSIS OF VARIANCE; STATISTICAL DATA

ABSTRACT: Children of three ages were compared with adults in a recognition experiment requiring continuous processing of information. The growth in precision for visually presented words is steeper than for auditorially presented words, largely because the former are harder for the first graders and, to a lesser extent, for the third graders. In adults, visual processing of information is at least as good as auditory. The use of receiver operating characteristic curves in describing the data permit greater precision in estimating the capacity of the individual subjects and are particularly useful since the errors of failure to recognize were different from ordinary errors of false recognition, and they occurred in large numbers. (The document includes a table, eight charts, and 11 references. ) (author)

AC 002 705 JI ADULT TRAINING: THE USE OF PROGRAMMED INSTRUCTION. Neale, J.G.; And Others DOCUMENT NOT AVAILABLE FROM EDRS. In Occupational Psychology, v42 n1 p23-31 1968 9p.

TERMS: *ADULT LEARNING; *PROGRAMED INSTRUCTION; *TIME FACTORS (LEARNING); *AGE DIFFERENCES; RESEARCH; CHARTS; MAP SKILLS; VOCATIONAL EDUCATION

ABSTRACTS Two experiments were conducted in which programed instruction was used to teach factual information to young and older adults. In the first experiment, trainee bus conductors were taught to read fare charts; tests were given after the one hour lesson and after experience on the bus route. For younger adults (under 30) the programed instruction proved superior to classroom instruction given to a control group; for the older adults, classroom instruction was better, but not significantly so. Older adults may not have time to learn factual information as well as how to learn from a program and they may need revision frames. In a second experiment, women students at teachers training colleges were taught map reading for five hours during one week, in an effort to estimate the optimum length of teaching session within this five hours. The younger students (under 35) did better with 1/2 hour sessions and the older students (over 35) did better with one hour sessions. The results show that older people do not necessarily learn better or worse; rather they learn best under different conditions. (eb)

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AC 002 103FE A LEARNING TEST APPROACH TO PREDICTING CLASSROOM PERFORMANCE. Wardrop, James.L. Washington Univ., St. Louis, Mo. Dept of Psychology R-TR-13 NONR-816 (14) AD-661-276 Sep 67 DOCUMENT NOT AVAILABLE FROM EDRS.

TERMS: *adult learning, *academic achievement, *predictive validity, *tests, *evaluation, simulation, programed instruction, intelligence,

ABSTRACT: As shown in two **studies** involving U.S. Navy electronics trainees and in one involving students in an introductory psychology course, miniature learning situations can be used to predict classroom performance. When a single program is used to obtain a measure of learning ability, the combination of the resulting gain measures of learning ability with a measure of verbal intelligence leads to an appreciably higher validity than can be obtained when either measure is used singly. Since programed instruction provides an effective miniature learning situation, suggestions are made for further research dealing with the possibility of using other complex learning tasks as miniature learning situations, and with the relationships among the various gain measures of learning which would be developed. (The document includes 14 tables and 33 references.) This document,AD-661-276, is available from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151. Microfiche $0.65. Hard copy $3.00. 48 pages. (author/ly)

SECONDARY TERMS: measurement instruments, programed texts, experimental groups, electronics, psychology, pretests, post testing, ability, research, analysis of variance, statistical data, research needs, AC 001 983FE EFFECTS OF MAGNESIUM PEMOLINE UPON HUMAN LEARNING, PERFORMANCE, AND PERFORMANCE TESTS. Smith, Ronald G. Edgewood Arsenal, Md. Medical Research Lab. R-EA-TR-4139 FLD/GR-5/10-6/15 AD-661-320 Oct 67 DOCUMENT NOT AVAILABLE FROM EDRS.

TERMS: *stimulants, adult learning, retention, performance, enlisted men, intelligence, visual discrimination, auditory discrimination, verbal learning, psychomotor skills, conditioned response, research, statistical data,

ABSTRACT

This study was conducted during 1966 to determine the effects of magnesium pemoline (a combination of 2-imino-5-phenyl-4-oxazolidinone and magnesium hydroxide) on a variety of human learning, memory, and performance tasks. Magnesium pemoline (25 or 37.5 mg) or a placebo was administered orally on a double-blind basis to intelligence-matched groups of normal, adult enlisted men. These agents were given three hours before the testing. Seven tests were used in the experiment--verbal learning, motor learning, auditory short term memory, visual reaction time, galvanic skin response classical conditioning, visual short term memory, and arm hand steadiness. From the test results, it was concluded that magnesium pemoline, in the doses tested, does not facilitate learning, memory, or performance in normal, adult males. In fact, the only statistically significant effects indicate that the higher dose was deleterious for verbal and motor learning. (The document includes five appendixes and 19 references.) This document, AD-661-320, is available from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151. Microfiche $.65. Hardcopy $3.00. (author/ly)

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AC 002 270 I ESTIMATING WAIS IQ FROM PROGRESSIVE MATRICES SCORES (In JOURNAL OF CLINICAL PSYCHOLOGY, 23(2)/184-185, 1967). Shaw, Dale J. 67 DOCUMENT NOT AVAILABLE FROM EDRS 2p.

TERMS: *intelligence quotient, *adults, *measurement instruments, *test validity, *evaluation, research, psychometrics,

ABSTRACT: A correlation of .83 was found between Progressive Matrices raw scores and Full Scale IQs on the Wechsler Adult Intelligence Scale (WAIS) for 83 neuropsychiatric patients. It is concluded that the Progressive Matrices might be a valuable and economical substitute for the WAIS when as IQ estimate is required. The document includes one table and two references. It appeared in the JOURNAL OF CLINICAL PSYCHOLOGY, Volume 23, Number 2, 1967. (Psychological Abstracts/ly)

SECONDARY TERMS: Wechsler Adult Intelligence Scale (WAIS), Progressive Matrices,

AC 002 021 E SAMPLE-FREE TEST CALIBRATION AND PERSON MEASUREMENT. Paper
ED 017 810 presented at the National Seminar on Adult Education Research
(Chicago, February 11-13, 1968). Wright, Benjamin D. 28 Oct 67
EDRS PRICE MF -$0.25 HC-$0.96 22p.
TERMS: *measurement techniques, *testing, *intelligence, *test reliability,
models, item analysis, test results, George Rasch measurement model,

ABSTRACT: Objectivity in mental testing requires that test calibration be independent of which persons are used for the calibration and that person measurement be independent of which items are used for the measurement. Present practice is not objective, but could be so, as shown by the example here presented. Data came from the responses of 976 law students to 48 reading comprehension items on the Law School Admissions test. The possibility of person free test calibration is demonstrated by showing that a calibration based on the responses of a Dumb Group of students can be nearly identical with one based on a Smart Group. The possibility of item free person measurement is demonstrated by showing that ability estimates made from scores on an Easy Test can be statistically equivalent to those made from a Hard Test. The measurement model which makes this objectivity possible was developed by George Rasch. In this model the odds of success on a test item are hypothesized to be given by the product of the person's ability and the item's easiness. In order to fit this model items must be chosen or constructed to have similar discrimination. The resulting measures of person ability and item easiness are on a ratio scale with a natural zero and a definable unit. This paper was presented at the National Seminar on Adult Education Research, Chicago, February 11-13, 1968. (author/rt)

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AC 002 518FE DIFFERENTIAL APPROACHES TO TRAINING. Taylor, John E. * Fox, Wayne L.
George Washington Univ., Washington, D.C. HumRRO. PP-47-67 DA-44-188-ARO-2
AD-665-056 Nov 67 DOCUMENT NOT AVAILABLE FROM EDRS.
TERMS: *military training, *aptitude, *training techniques, *task performance,
*time factors (learning), research, experimental groups, enlisted men,
problem solving, individual differences, test results, statistical data,
level of complexity, Armed Forces Qualification Test,

ABSTRACT

Training tasks were presented under laboratory conditions to newly inducted Army basic trainees grouped by Armed Forces Qualification Test (AFQT) scores. The high group (N=52) ranged in score from 90 to 99, the middle group (N=30) from 45 to 55, and the low group (N=61) from 10 to 21. Tasks were varied in complexity including simple and choice S-R monitoring, motor chaining, verbal chaining, multiple discrimination, and principle application tasks. Learning performance was directly and highly related to aptitude level. In some tasks, group differences were in rate of learning only. In others, groups differed in rate and in final level of performance. Individual performance was highly consistent across tasks. Performance was related to training method for both high and low aptitude groups. The low aptitude trainees did poorly on all tasks, taking an average of two or three times as long to learn as the high group. This document, AD-665-056, is available from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151. Microfiche $.65. Hard copy $3.00. 17 pages. (author.ly)

AC 002 517 E AN INVESTIGATION OF THE FEASIBILITY OF NAVY AVIATION STRUCTIONAL MECHANICS S (STRUCTURES) TRAINING FOR GROUP IV PERSONNEL. Harding, Larry G. * and others. Naval Personnel Res. Activity, San Diego, Calif. SRR-68-15 AD-665-304 Jan 68 Project PF0170301J02 DOCUMENT NOT AVAILABLE FROM EDRS.

TERMS: *military training, *technical education, *aviation mechanics, *low ability students, *feasibility studies, program evaluation, research, enlisted men, task performance, programed instruction, statistical data, academic failure, abstract reasoning, shop curriculum, U.S. Navy,

ABSTRACT

The purpose of this research investigation was to determine the appropriateness of current Aviation Structural Mechanic S (Structures) School, Class A, training for Mental Group IV personnel. This training consists of a sequence of three courses. It was found that 50 percent of the Group IV students would have been dropped from training prior to the completion of the sequence while the normal attrition rate does not exceed one percent in any of the three courses. The Group IV students had their greatest difficulties with relatively abstract material in the area of mathematics and physics. On performance tests and shop projects their work was on a par with that of the regular students. The current training sequence does not seem to be suitable for use with Group IV students. (The document includes seven tables.) This document is available, as AD-665-304, from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151. Microfiche $.65. Hard Copy $3.00. 32 pages. (author/ly)

AC 002 512 E AN INVESTIGATION OF THE FEASIBILITY OF NAVY COMMISSARYMAN TRAINING FOR GROUP IV PERSONNEL. Hooprich, Eugene A. * Steinemann, John H. Naval Personnel Research Activity, San Diego, Calif. SRR-68-7 Proj-PF0170301IX2 AD-664-419 Sep 67 DOCUMENT NOT AVAILABLE FROM EDRS.

TERMS: *military training, *food service, *feasibility studies, *low ability students, enlisted men, achievement, test results, training techniques, statistical data, analysis of variance, United States Navy,

ABSTRACT

An investigation was conducted to determine the feasibility of providing Navy Class A Commissaryman School training for Mental Group IV personnel. The achievement of 17 Group IVs was compared with that of 29 regular students in two successive eight-week classes of the Commissaryman School. Research data were obtained from service records, pretraining and course achievement tests, pretraining and posttraining questionnaires, and interviews with instructors. The Group IV personnel successfully completed the Commissaryman training. However, their course achievement, as measured by typical school tests, tended to be significantly less than that of regular students in the same classes. Specific problem areas were identified, and the appropriateness of certain job aids and training modifications was discussed. Recommendations were made for the training of Group IV personnel and for further related research. This document, AD-664-419, is available from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151. Microfiche $.65. Hard copy $3.00. 30 pages. (author/ly)

AC 002 541 JI ADULT EDUCATION AND HUMAN DEVELOPMENT. Havighurst, Robert J. DOCUMENT NOT AVAILABLE FROM EDRS. In Centro Sociale, International Issue; v14 n76-78 p19-30 1967 12p.

TERMS: *ADULT EDUCATION; *ADULT DEVELOPMENT; *DEVELOPMENTAL TASKS; *AGE DIFFERENCES; ROLE PERCEPTION; EDUCATIONAL NEEDS

ABSTRACT: The view that education, rather than being basically preparatory, is a way of meeting demands and aspirations of the present period of one's life, is the most profound educational change of this century. Education has two basic and essential aspects--instrumental (aimed at modifying the situation of the learner) and expressive (directed toward more intrinsic goals), and in a changing society a competent person must combine both kinds of learning at each stage of life. Adult development can be viewed in terms of successive social roles and developmental tasks--getting established in adult roles (ages 20-40), living on a high plateau of influence and energy (40-55), maintaining one's position and looking ahead (55-65), and disengaging successfully (65-80). As revealed by this analysis, the major challenge lies in finding ways to extend adult education beyond its instrumental forms into more expressive or intrinsic forms, to serve more people over 50, and to serve more working class people. (Six references are included.) (ly)

AC 002 711 JI ADULT DEVELOPMENT OR IDIOSYNCRATIC CHANGE? A PLEA FOR THE DEVELOPMENTAL APPROACH. Bortner, Rayman W. DOCUMENT NOT AVAILABLE FROM EDRS. Reprinted from The Gerontologist; v6 n3 p159-64 Sep 1966 6p.

TERMS: *AGE; *ADULT DEVELOPMENT; *PERSONALITY CHANGE; *EVALUATION; *RESEARCH REVIEWS (PUBLICATIONS); THEORIES; INTERACTION; SELF CONCEPT; INDIVIDUAL PSYCHOLOGY; DEVELOPMENTAL TASKS

ABSTRACT: As seen in this evaluative research review, all theories of adult development, including the disengagement stage, treat biological factors as but one set of variables, stress the interaction between the individual and his social system (including developmental tasks imposed by the culture), and views stability in personality functioning as a reflection of relatively stable interaction processes. The essential argument of this paper is that at least some personality changes during adulthood can be conceptualized in developmental terms. Advantages of a postulation of adult stages of development (even if applicable only to subgroups in the population) lies in a clearer understanding of clinical problems, concomitant increases in the efficiency of therapeutic measures and preventative techniques, and a clearer conceptualization of the processes of aging. (The document includes 26 references.) (ly)

AC 002 747 JI ROUTES TO ADULTHOOD. Havighurst, Robert J. DOCUMENT NOT AVAILABLE FROM EDRS.
In Journal of Cooperative Extension; v6 nl p7-14 Spr 1968 8p.

TERMS: *ADOLESCENTS; *SOCIALIZATION; *BEHAVIOR PATTERNS; *MATURATION; *TEACHING TECHNIQUES;

ABSTRACT: Adolescents use various routes to progress into adulthood. From the adult point of view, some of these routes are acceptable while others are not. Although most youth make a successful transition into adulthood, others cling to their peer groups and defy the adult society which awaits them. The author defines five subgroups of adolescents (maintainers and conformers, the entrepreneurs, the uncommitted, the half-socialized, and the unsocialized) and discusses the kinds of leaders and programs that are most successful in working with these five groups of youth. (author/ly)

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AC 000 874ME SOME IMPLICATIONS OF A CONCEPT OF GROWTH MOTIVATION FOR ADULT EDUCATION THEORY AND PRACTICE. (M.S. thesis). Noreen, David Sheldon Indiana Univ., Bloomington Sep 66 DOCUMENT NOT AVAILABLE FROM EDRS.

TERMS: *self actualization, *adult education, *motivation, *personality development, *educational theories, behavior change, evaluation, research, learning processes, adult learning, masters theses, Abraham H. Maslow,

ABSTRACT

This study examined growth motivation as a developing concept and as a theoretical construct, and the implications of this theory for adult education theory and practice. Special attention was given to the theoretical constructs of Abraham Maslow, to the nature of growth motivation concepts in general, and to forms of self understanding and possibilities for developing human potential that are suggested by such concepts. Concepts of selfhood, desirable behavior change, and the learning process were considered within this framework. Growth motivation theory, stressing as it does the processes and content of experience, was seen as compatible with adult education programs intended to help persons to become mature and fully functioning. Growth inhibiting adult education settings were contrasted with the kinds of settings that can help nurture the "growth urge." Further research was recommended on educational settings that emphasize self motivated learning. (The document includes a glossary and 54 references.) It is available from Indiana University, Bloomington. 52 pages. (ly)

AC 000 151 C (SEE AC 000 207 C ) CHANGES IN GOALS WITH ADULT INCREASING
AGE (In VOCATIONAL GUIDANCE AND CAREER DEVELOPMENT, by Hermam
J. Peters and James C. Hansen. New York, Macmillan, 1966/450-456).
Kuhlen, Raymond G. * Johnson, George H. 66 7p. charts. table.
bibliog., p.456

TERMS: *aging, *males, *goals, *evaluation, older adults

ABSTRACT: Single and married women teachers and married men teachers, aged 20-65, responded to the question, "What would you most like to be doing ten years from now?" asked in connection with a general survey of the job satisfaction and adjustment of teachers. An analysis of replies by semidecades indicated marked changes in orientation with increasing age. Single women in their 20's expressed a hope to marry, but after 30 desire for vocational advancement was increasingly mentioned. Married working women showed in the 20's a desire to be in their own homes as housewives. Married men were clearly vocationally oriented. For all groups, interest in retirement with the next ten years began to occur in the 40's. (aj)

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**AC 001 566 I** **THE YOUNG ADULT--A CONCEPTUAL FRAMEWORK. SUMMARY. Chickering, Arthur W.**
**ED 014 751** **Goddard Coll., Plainfield, Vt. EDRS PRICE MF-$0.25 HC-$0.60 13p.**

**TERMS:** ***YOUNG ADULTS; *CONCEPTUAL SCHEMES; *DEVELOPMENTAL TASKS; *COLLEGE STUDENTS; EMOTIONAL DEVELOPMENT; COLLEGE ROLE; SELF ACTUALIZATION; INTERPERSONAL RELATIONSHIP**

**ABSTRACT:**

THE DEVELOPMENTAL STAGE SPANNING THE YEARS FROM 18 TO 25 MUST BE STUDIED SEPARATELY FROM OTHER DEVELOPMENTAL STAGES. THE DEVELOPMENTAL TASKS OF THIS PERIOD ARE RELATED TO, BUT SUBSTANTIALLY DIFFERENT FROM, THOSE OF BOTH ADOLESCENCE AND ADULTHOOD. THE SEVEN MAJOR DEVELOPMENTAL VECTORS FOR THE YOUNG ADULT INCLUDE DEVELOPMENT OF COMPETENCE, MANAGEMENT OF EMOTIONS, DEVELOPMENT OF AUTONOMY, DEVELOPMENT OF IDENTITY, FREEING OF INTERPERSONAL RELATIONSHIPS, AND DEVELOPMENT OF PURPOSE AND INTEGRITY. BECAUSE UNIVERSAL HIGHER EDUCATION IS BECOMING A REALITY, COLLEGES AND UNIVERSITIES MUST BROADEN THEIR PURPOSE TO INCLUDE NOT ONLY INTELLECTUAL DEVELOPMENT BUT ALSO DEVELOPMENT OF THE YOUNG ADULT IN RELATION TO THE VECTORS OUTLINED ABOVE. (PS)

AC 002 555 I PROCEEDINGS OF THE INTERNATIONAL CONGRESS OF GERONTOLOGY ON PSYCHOLOGY AND THE SOCIAL SCIENCES; APPLIED SOCIAL RESEARCH (SOCIAL WELFARE) (7TH, VIENNA, AUSTRIA, June 26-July 2, 1966). PLANNED SCIENTIFIC SESSIONS. TOM. 6. Verlag der Wiener Medizinischen Akademie, Austria. DOCUMENT NOT AVAILABLE FROM EDRS. Available from Johann A. Wuelfing, Duesseldorf, West Germany. 374p.;Text in English, French, and German.

TERMS: *AGE; *PSYCHOLOGY; *SOCIAL WELFARE; *SOCIAL SCIENCES; *RESEARCH; OLDER ADULTS; HEALTH; ADJUSTMENT (TO ENVIRONMENT); RETIREMENT; MEMORY; AGE DIFFERENCES; INTELLIGENCE; PERCEPTION; MORALE; MANAGEMENT; VOCATIONAL RETRAINING; INSTITUTIONALIZED (PERSONS)

ABSTRACT: Volume 6 of the proceedings of the 1966 International Congress of Gerontology contains 88 research papers on clinical, biological, psychological, and sociological aspects of aging and old age. Mental and physical illness and health, health care, adjustment to retirement, visual and auditory perception, living arrangements (including homes for the aged), management development, vocational retraining, role and personality changes, attitudes toward life and death, and the characteristics of centenarians are among the topics considered. The document includes charts, tables, indexes, and numerous chapter bibliographies. (ly)

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AC 001 586 I NEW DIMENSIONS AND A TENTATIVE THEORY. Paper presented at the symposium on learning and memory, annual meeting of the Gerontological Society (19th, New York, Nov 3, 1966). Eisdorfer, Carl 66 6p.

TERMS: *learning theories, *adult learning, *performance factors, *time factors (learning), learning difficulties, research, anxiety, cognitive ability,

ABSTRACT: Studies of learning ability in the aged led to a tentative theory that autonomic and performance factors play a significant role. In a study of the effect of time on learning, older men aged 60 to 80 profited more from longer exposures to the material than did young men aged 20 to 49. With longer exposure the older men's errors of omission, but not of commission, decreased, suggesting that older persons might be learning relatively rapidly but be unable to produce a response on time. In another experiment blood samples were taken and the free fatty acid component was measured as an index of autonomic arousal. The fact that the older people were more highly aroused and remained so longer led to the hypothesis that withholding response by older persons is related to heightened level of stress, that not the faster speed of pacing but the experimental situation itself contributes to the anxiety level. A third experiment designed to reduce environmental stress by gradual familiarization, demonstrated that situational variables produce an effect on learning. Persistent heightened arousal could make learning more difficult for the aging individual causing a vicious spiral of increased stress. Contrary to expectation, however, another test proved the older persons to be stimulus-response learners at slow paces as opposed to insightful, cognitive learners at faster paces. (rt)

SECONDARY TERMS: age differences, autonomic function,

AC 002 505 I ACTIVITY LEARNING AND THE OLDER WORKER. Belbin, Eunice; Downs, S. W.
DOCUMENT NOT AVAILABLE FROM EDRS. In Ergonomics; v7 n4 Oct 1964 9p.
TERMS: *AGE DIFFERENCES; *ADULT LEARNING; *ACTIVITY LEARNING; SORTING
PROCEDURES; RESEARCH; PICTORIAL STIMULI; MEMORIZING

ABSTRACT: Previous experiments have shown the superiority, especially for older recruits, of training methods where procedures of learning were incorporated into tasks involving activity. In one of two laboratory experiments the subject was required to learn a concept of color picture relationship by placing numerous pictures onto a board of different colors in such a way that the emergence of an overall concept depended on the activity itself. This form of active learning benefited all age groups but especially older subjects. In the second experiment, subjects were required to memorize the relationship between a series of villages and the counties to which they belonged by using a method which obliged the subjects to sort them onto a board. The manual activity involved in sorting the associates while learning them impeded the older subjects. It is postulated that activity learning confers no benefits if it evokes a series of mechanical responses. On the other hand, where the activity engenders creative thinking, it is a preferred method of learning. (author/ly)

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AC 002 676JI ANTICIPATION INTERVAL AND AGE DIFFERENCES IN VERBAL LEARNING. Arenberg,
David DOCUMENT NOT AVAILABLE FROM EDRS. Available In Journal of
Abnormal Psychology; v70 n6 p419-23 Dec 1965,7p.
TERMS: *AGE DIFFERENCES; *VERBAL LEARNING; *TIME FACTORS (LEARNING); *PACING;
*EVALUATION; RESEARCH; EXPERIMENTAL GROUPS; ADOLESCENTS; ADULTS;

ABSTRACT: Age differences in verbal learning were demonstrated, and these differences were greater at the shorter anticipation interval than at the longer in two paired associate studies. Earlier work had suggested that this age-pace interaction was not a true learning effect but a performance deficit due to the difficulty older persons have in responding rapidly. The second study provided evidence that relatively few of the errors made by the old subjects (ages 60-77) at the fast pace would be attributed to insufficient time to emit a learned response. Even when subjects were permitted to take as much time as needed to respond, the age-pace interaction was found. Several possible explanations of such a learning deficit were noted. (The document includes eight tables and charts and 12 references). (author/ly)

AC 002 446 E FACILITATION AND INTERFERENCE IN THE OLDER ADULT LEARNER. Final Report.
McCrystal, Thomas J. Xavier Univ., Cincinnati, Ohio Proj-7-8314 U.S. Office
ED 019 605 of Education, Washington. Bureau of Research BR-7-8314 31 Oct 67
OEG-1-7-078314-3725 EDRS PRICE MF-$0.25 HC-$1.28 30p.
TERMS: *middle aged, *adult learning, *retention, *interference (language learning), *age differences, young adults, learning processes, research,

ABSTRACT

This study is concerned with the degree to which older and younger adults are subject to the interfering effects of past habits. To determine the extent to which hypotheses based on assumptions of contemporary interference theory hold for the older adult population, these hypotheses were tested in a negative transfer task, where incompatible responses in a second task are associated with identical stimuli from an original task. The results showed that retention curves over a week were comparable for the younger and older age groups, although the older group took significantly longer to learn the tasks. This implies that memory in the adult is not so much a function of age as it is of the degree of learning, and also that learning is a function of age. The findings extend the generality of the interference theory of forgetting to the older adult population. A further implication of the findings is that the facilitating mechanisms which are found to facilitate learning and retention by increasing resistance to interference in younger subjects should also apply to the older adults. It is suggested that the absence of these facilitating mechanisms may be responsible for a large part of the memory loss in adults. (author)

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AC 002 892 JI PROBLEMS OF LEARNING FOR THE OVER 40'S. Belbin, Eunice DOCUMENT NOT AVAILABLE FROM EDRS. In Gerontologia Clinica; v7 n1 p61-8 1965. 8p.
TERMS: *ADULT LEARNING; *LEARNING DIFFICULTIES; *MIDDLE AGED; *ACTIVITY LEARNING; *PSYCHOLOGICAL STUDIES; OLDER ADULTS; RETRAINING

ABSTRACT: Psychological difficulties of the older learner are discussed in relation to retraining for employment. Previous evaluations of adult learning have not realistically appraised the older adults' ability since laboratory training is artificial, tends to reduce confidence, and requires the older subject to adopt a form of learning with which he is unfamiliar. Studies are quoted which reveal that activity learning is superior to the traditional methods for the older worker. As a result of experiments conducted in both laboratory and industry in analyzing the activity method, general principles for training the older worker are suggested. Among areas discussed are: short term memory, interference, translation from one medium to another, need for unlearning, paced and complex tasks, and lack of confidence. (pt)

AC 001 635 E NEW CAREERS IN MIDDLE AGE (Separatum to proceedings of the International Congress of Gerontology, 7th, Vienna, Jun 26- Jul 2, 1966). Belbin,
ED 014 663 Eunice * Belbin, R.M. 66 EDRS PRICE MF-$0.25 HC-$0.60 15p.
TERMS: *age, *middle aged, *vocational retraining, *training techniques, *adult learning, home study, group instruction, individual

ABSTRACT: Serious problems exist in retraining older workers, but where an appropriate method of training can be developed, older trainees can achieve results comparable with those of their younger colleagues. Specific requirements of the middle-aged learner include long and uninterrupted learning sessions, greater consolidation of learning before new skills are attempted, accurate responses and rapid feedback during learning, self- structured learning programs and avoidance of competition, and active mental participation during learning (learning by discovery rather than by rote). Problems of steering older workers into training can be alleviated through personal counseling and the use of group training. Home study combined with periodic practical training and group tutorials has been successful, especially when trainees have had some learning activity since leaving school. Real employment security rests on the ability to move from one job to another and here training of the middle-aged in new skills plays a vital role. The young worker, too, must accept lifelong learning in a flexible pattern of work and study. (This document is the SEPARATUM to the Proceedings of the 7th International Congress of Gerontology, held at Vienna, Austria, Jun 26-Jul 2, 1966) (aj)
SECONDARY TERMS: counseling, motivation, research needs, continuous learning, discovery learning, mobility, employment opportunities, environmental influences, United States, Great Britain, France, Sweden, Norway, Costa Rica, Poland,

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AC 002 267 I EXPERIMENTAL STRESS AND LEARNING IN THE AGED (In JOURNAL OF ABNORMAL PSYCHOLOGY, 72(1)/65-70, 1967). Troyer, William G. Jr.
* and others 67 DOCUMENT NOT AVAILABLE FROM EDRS. 6p.
TERMS: *adult learning, *older adults, *stress variables, *anxiety, *time factors (learning), verbal learning, pacing, rote learning,

ABSTRACT: Serial rote verbal learning under fast (four second) and slow (ten second) pacing was administered to six groups of 54 men (mean age, 67.8) under three levels of experimental stress. Maximal effects of induced stress including response inhibition were predicted for slower pacing. Results confirmed this hypothesis and suggest that the increased learning and responsivity of aged subjects with longer exposure duration may be a function of anxiety reduction. The document includes a table, two figures, and 13 references. It appeared in the JOURNAL OF ABNORMAL PSYCHOLOGY, Volume 72, Number 1, 1967. (author/ly)

AC 002 268 I EFFECTS OF AGE ON ORGANIZATION AND RECALL OF TWO SETS OF
STIMULI (In PSYCHONOMIC SCIENCE, 7(1)/53-54, Jan 5, 1967).
Taub, Harvey A. * Greiff, Shirley 67 DOCUMENT NOT
AVAILABLE FROM EDRS. 2p.

TERMS: *age differences, *memory, *cognitive ability, research,
young adults, older adults,

ABSTRACT: Short term recall of sequences of eight letters was measured for 12 young and 12 aged subjects (females with mean ages of 20.1 and 69.7 years, respectively) in a control condition with a single stimulus set and three experimental conditions which differed in arrangement of two sets of color coded stimuli. The results indicated that there were no differences in performance for the stimuli to be recalled first, while both age and conditions were significant effects for the stimulus set to be recalled second. Thus, the data do not support the notion of differential decay as a function of age, but do suggest a decline in organizing ability and a greater susceptibility to interference during the storage and retrieval stages once the capacity is exceeded. The document includes a chart and four references. It appeared in PSYCHONOMIC SCIENCE, Volume 7, Number 1, January 5, 1967. (author/ly)

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AC 000 591 I AGE AND MENTAL ABILITIES, A SECOND ADULT FOLLOW-UP (Reprint, Journal
of educational psychology 57(6)/311-325, 1966). Owens, W.A.
66 18p.

TERMS: *intellectual development, *longitudinal studies, *age, *mental development,
*adult development, individual differences, intelligence tests,

ABSTRACT: The 96 men, first tested as entering freshmen at Iowa State University in 1919 and again in 1950 with the Army Alpha, were retested in 1961 at an average age of 61. The Army Alpha and Life Experience Inventory were used. The men represented a 75 percent sample of the 127 first retested during 1950. This paper reported the 1950-1961 results and integrated the data of the last 10 years with that of the preceding 30. The decade from age 50 to age 60 was one of relative constancy in mental ability test performance. The apparent trend, which was statistically insignificant, was slightly downward. Contrary to expectation, aging does not seem to have increased either individual or trait differences among the testees of 1961. Clearly, however, major components of the pattern of living and environment of the men have moderated the relationship between age and mental ability. (author/aj)

SECONDARY TERMS: factor analysis, statistical analysis, aging, research, Army Alpha, Life Experience Inventory, AC 002 564*I A DESCRIPTION AND ANALYSIS OF SELECTED CHARACTERISTICS IN ADULT BASIC EDUCATION IN HILLSBOROUGH COUNTY, FLORIDA. Dutton, Marion Donnie Florida State Univ., Tallahassee DOCUMENT NOT AVAILABLE FROM EDRS. Will be available from University Microfilms, 300 Zeeb Rd., Ann Arbor, Michigan 41806 Dec 67 183p. Ph.D. thesis.

TERMS: *ADULT BASIC EDUCATION; *INDIVIDUAL POWER; *ILLITERATE ADULTS; *STUDENT ALIENATION; *SCHOLARSHIPS; RESEARCH; STUDENT CHARACTERISTICS; PARTICIPATION; STUDENT PROBLEMS; INFORMATION SOURCES; STATISTICAL DATA; DOCTORAL THESES *Florida

ABSTRACT: The purpose was to identify the personal, behavioral, and perceptual characteristics associated with participants in a stipend versus a nonstipend adult basic education program in Florida and with an attitudinal variable, alienation, as measured by Dean's scale. Data were obtained from 96 stipend and 155 nonstipend students by means of a questionnaire and the alienation scale. Of the 101 independent variables, 55 were significantly related to type of participation and 19 to degree of alienation. Findings supported the following conclusions: (1) participants in the stipend program differ significantly from those in the other program; (2) adult basic education participants showing a high degree of alienation differ significantly from those showing little alienation; (3) low income, undereducated adult basic education students have problems but do not make extensive use of agencies available for solving these problems; and (4) the students learn about adult classes from many sources. Included are 31 references and 49 tables. (author/ly)

AC 002 774 JI ANOMIA AND COMMUNICATION BEHAVIOR: THE RELATIONSHIP BETWEEN ANOMIA AND UTILIZATION OF THREE PUBLIC BUREAUCRACIES. Marsh, C. Paul; And Others DOCUMENT NOT AVAILABLE FROM EDRS. In Rural Sociology v32 n4 p435-45 Dec 67

TERMS: *SOCIAL ISOLATION; *INFORMATION UTILIZATION; *INFORMATION SEEKING; *BEHAVIOR PATTERNS; EDUCATIONAL BACKGROUND; EMPLOYMENT SERVICES; EDUCATIONAL OPPORTUNITIES; RURAL EXTENSION; INFORMATION SOURCES; FEDERAL AGENCIES Cooperative Extension Service; South Carolina

ABSTRACT: It appears theoretically sound to hypothesize that anomia and communication behavior are related. Since the highly anomic individual is by definition uncertain as to norms (that is, as to what behavior is appropriate), they are probably less likely to make use of public bureaucracies. A negative association was found between anomia scores and extent of contact with the Agricultural Extension Service and between anomia and knowledge of area vocational schools. The relationships were in the hypothesized direction regardless of educational level, though the degree of association was quite low in some categories. However, the data did not support the hypothesis of a negative relationship between anomia and contact with the Employment Security Commission. Presumably, the most anomic individuals are most often unemployed and thus more often require the assistance of the employment service in filing for unemployment benefits and in locating employment. This greater need may offset any greater tendency for more highly anomic persons to avoid contact. (The document includes six tables and 18 references.) Author/ly)

AC 002 862 I ESOL AND THE MEXICAN-AMERICAN. Scarth, Peter; Regan, Timothy F.
ED 016 977 Apr 68 EDRS PRICE MF-$0.25 HC-$0.16 Also in The Linguistic Reporter; April 1968. Single copies available from the Center for Applied Linguistics, 1717 Massachusetts Avenue, N.W., Washington, D.C. 20036 2p.

TERMS: *CHILDREN; *LANGUAGE INSTRUCTION; *ENGLISH (SECOND LANGUAGE); *MEXICAN AMERICANS; *MIGRANT ADULT EDUCATION; LITERACY EDUCATION; READING DIFFICULTY; SPANISH SPEAKING; CULTURAL BACKGROUND; FEDERAL PROGRAMS; STATE PROGRAMS; PSYCHOLOGICAL CHARACTERISTICS; EXPERIMENTAL PROGRAMS

ABSTRACT:

CURRENTLY, FEDERAL AGENCIES AND VARIOUS STATE DEPARTMENTS OF EDUCATION ARE CONDUCTING LITERACY PROGRAMS AND PROGRAMS IN ESOL (ENGLISH FOR SPEAKERS OF OTHER LANGUAGES) FOR SOME 1,500,000 MEXICAN-AMERICAN MIGRANT WORKERS. TO A GREAT EXTENT THESE PROGRAMS HAVE BEEN TO SOME DEGREE UNSUCCESSFUL BECAUSE THEY HAVE DISREGARDED THE LEARNER'S PSYCHOLOGICAL SET AND CULTURAL HERITAGE. IN SPITE OF RESEARCH WHICH SHOWS THAT CHILDREN LEARN TO READ AND WRITE ENGLISH FASTER AND MORE EFFECTIVELY IF FIRST TAUGHT THEIR NATIVE SPANISH, SCHOOLS CONTINUE TO INSIST ON ALL-ENGLISH CLASSES. THIS, IN ADDITION TO THE MENTAL CONFUSION AND INCOMPLETE MASTERY OF THE TWO LANGUAGES WHICH THE ALL-ENGLISH APPROACH PRODUCES, RESULTS IN (1) POOR ACHIEVEMENT ON DIAGNOSTIC TESTS AND IN CLASSWORK, (2) HIGH DROPOUT RATES, AND (3) ILLITERACY (OFTEN IN BOTH SPANISH AND ENGLISH). INAPPROPRIATE METHODOLOGY AND MATERIALS ARE TWO BASIC REASONS FOR FAILURE IN THE ADULT EDUCATION PROGRAMS. SIGNIFYING A "BRIGHTER FUTURE" IN THE FIELD OF ESOL ARE (1) GREATER EFFORTS AT COORDINATION BY NATIONAL AGENCIES, (2) INNOVATIVE PROGRAMS, AND (3) THE USE OF PROFESSIONALLY TRAINED ESOL SPECIALISTS. THIS ARTICLE APPEARS IN "THE LINGUISTIC REPORTER," APRIL 1968. SINGLE COPIES ARE AVAILABLE UPON REQUEST FROM THE CENTER FOR APPLIED LINGUISTICS, 1717 MASSACHUSETTS AVENUE, N.W., WASHINGTON, D.C. 20036. (AMM)

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AC 001 693 E TEACHING ADULTS TO READ. Otto, Wayne * Ford, David. 67 DOCUMENT
ED 014 680 NOT AVAILABLE FROM EDRS 192p.

TERMS: *literacy education, *instructional materials, *teaching techniques, *functional illiteracy, *adult characteristics, word study skills,

ABSTRACT: This guide presents a variety of materials, methods, and ideas for teaching functionally illiterate adults (with less than Grade 4 reading ability). Emphasis is placed on helping adults to read independently and to attain a level of skill sufficient for everyday reading tasks. The first three chapters deal with the nature of the problem of illiteracy and marginal illiteracy, the economic, domestic, social, and psychological problems that arise when adults return to school, and general characteristics of adult learners. Chapter 4 is largely devoted to 24 basic reading systems accompanied by detailed check lists, with selected supplementary materials also discussed. The final chapter reviews the sequential development of reading skills, reading inventories and standardized tests, the motivating of students, classroom management, lesson planning, and other facets of program implementation. (The document includes chapter references, tables, addresses of publishers, and a general index.) (This document is available from the Houghton Mifflin Company, Boston, Mass.) (ly)

SECONDARY TERMS: reading material selection, family involvement, social problems, adult learning, age differences, classroom techniques, reading materials, supplementary reading materials, functional reading, tests, testing, financial problems, illiterate adults, grade 4,

AC 001 325 E SYLLABUS FOR ADULT EDUCATION PROGRAMS FOR TEACHERS OF DISADVANTAGED
ED 012 866 (ed. 444G). Richardson, William * Shelton, Donald. Oregon College of Education, Monmouth. NOV 66 EDRS PRICE MF-$0.50 HC-$2.84 71p.

TERMS: *adult basic education, *curriculum guides, *adult educators, *disadvantaged groups, *bibliographies, adult learning,

ABSTRACT: Broad topics covered in the syllabus for teachers of adult basic education are--the introduction to the course, definition of the disadvantaged population (conditions and problems of minority groups and their characteristics), adult learning process (motivation, objectives, types of teachers needed, teaching techniques), counseling and guidance (basic principles, responsibility of staff members for counseling, testing), adult education development and history, adult education program (types of programs, legislation, migrant adult education), introduction to adult basic education curriculum (development of basic and intermediate skills), vocational education (types of programs and materials used), and general educational development testing program and certificate of equivalency (uses and preparation for tests) including future trends in adult education. The extensive bibliography includes teacher materials, student materials, and films and filmstrips. (aj)
SECONDARY TERMS: learning motivation, guidance counseling, vocational education, testing, correspondence courses, tutoring, teaching techniques, migrants, teacher characteristics, adult characteristics, reading, language skills, mathematics, citizenship, family life, minority groups, films, filmstrips,

AC 000 277 I ATTITUDES OF ADULT ILLITERATES TOWARD READING MATERIALS AND EDUCATIONAL
ED 015 855 PROGRAMS. Brown, Don; Newman, Annabel Dec 67 EDRS PRICE MF-$0.25 HC-$0.96 22p.

TERMS: *ILLITERATE ADULTS; *EDUCATIONAL ATTITUDES; *READING MATERIALS; *LITERACY EDUCATION; PARTICIPANT CHARACTERISTICS; ACHIEVEMENT; URBAN AREAS New York State

ABSTRACT:

ADULT ILLITERATES OF WESTERN NEW YORK WERE STUDIED TO DETERMINE THEIR ATTITUDES TOWARD READING MATERIALS AND EDUCATIONAL PROGRAMS. THE EXPERIENCE INVENTORY WAS USED TO INVESTIGATE EACH SUBJECT'S IDENTIFICATION AND BACKGROUND, THE EXTENT OF HIS FUNCTIONAL AND GENERAL KNOWLEDGE, AND HIS READING-ASSOCIATED INTERESTS. EIGHTEEN HIGH ACHIEVERS AND 22 LOW ACHIEVERS WERE IDENTIFIED FROM AMONG 207 ADULTS ATTENDING ADULT BASIC EDUCATION CLASSES IN BUFFALO AND NIAGARA FALLS, NEW YORK. RESULTS REVEALED THAT HIGH ACHIEVERS WERE LESS FREQUENTLY ON WELFARE, MORE FREQUENTLY WOMEN, AND CAME FROM LESS DEPRIVED BACKGROUNDS. IN INDICATING REASONS FOR LACK OF ACHIEVEMENT, ACHIEVERS MENTIONED PERSONAL OR PARENTAL DISINTEREST, ILLNESS, FOREIGN BIRTH, AND POVERTY. NONACHIEVERS POINTED TO INABILITY TO PROFIT FROM INSTRUCTION AND LACK OF SCHOOLS. NEITHER GROUP MENTIONED POOR TEACHING. THERE WAS A VERY SLIGHT DIFFERENCE BETWEEN THE TWO GROUPS' ATTITUDE TOWARD TELEVISION AND RADIO PROGRAMS. THE READING-ASSOCIATED INTERESTS MOST FREQUENTLY CHOSEN IN TERMS OF TITLES PRESENTED WERE FAMILY, SELF-IMPROVEMENT, JOBS, AND HEALTH. HIGH ACHIEVERS PREFERRED SCIENCE AND MATHEMATICS. IT WAS ALSO FOUND THAT ADULT CORE CITY ILLITERATES OFTEN POSSESSED A HIGH DEGREE OF POSITIVE ATTITUDES WHICH HELPED THEM PROFIT FROM ADULT EDUCATION INSTRUCTION. THIS PAPER WAS PRESENTED AT THE NATIONAL READING CONFERENCE (TAMPA, NOVEMBER 30 - DECEMBER 2, 1967). (NS)

AC 002 508FI THE INTERACTION OF PERSONALITY AND INTELLIGENCE IN TASK PERFORMANCE (IN EDUCATIONAL AND PSYCHOLOGICAL MEASUREMENT, 25(3)/731-744, 1965).
Kipnis, David * Wagner, Carl Naval Medical Research Inst., Bethesda, Md.
R-7 AD-662-092 65 DOCUMENT NOT AVAILABLE FROM EDRS.
TERMS: *intelligence, *task performance, *motivation, *level of difficulty, *persistence, personality, research, prediction, analysis of variance,

ABSTRACT: Prior field studies had found that intelligence moderated the validity of two noncognitive tests that had been developed to predict the job performance of Navy enlisted men. The first test was an attempt to measure persistence, and the second test was a purported measure of passive aggressive character structure.called the Insolence Scale. The present study tested the hypothesis that task difficulty was the basis for the field study results. From 70 to 140 Navy enlisted men completed three tasks, each of which was varied in task difficulty, Results did not support the hypothesis concerning task difficulty. However, they did yield significant interactions between intelligence, the two tests, and aspects of task performance. The findings then parallel in a lab setting those of the original field studies. Internal analysis suggested that task motivation, rather than task difficulty, may be the basis for the interactions between the persistence test and performance. (The document includes two tables and 19 references.) This document, AD-662-092, is available from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151. Microfiche $.65. Hardcopy $3.00. 14 pages. (author/ly)
SECONDARY TERMS: statistical data, predictive ability (testing), enlisted men,

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AC 000 169 C PROFILES OF CONTINUING ADULT LEARNERS (Reprinted from High school journal 49/64-72, Nov 1965). Sheffield, Sherman B. Nov 65 8p.
TERMS: *adult students, *adult characteristics, *research, *adult learning, *motivation, educational background,

ABSTRACT: An investigation of the underlying orientations that adult continuing learners have toward their learning activities used a three part instrument-- (1) the orientation index, (2) the continuing learning activities survey, and (3) demographic characteristics survey. Findings indicate that characteristics of the adult continuing learner do exist. Emergent profiles include the learning oriented, the desire-activity oriented, the personal-goal oriented, the societal-goal oriented, and the need-activity oriented.

AC 002 812 JI SELF-EXPRESSIVE STYLES AMONG ADULTS ENROLLED IN NONCREDIT CONTINUING EDUCATION COURSES. Griffith, Albert V. DOCUMENT NOT AVAILABLE FROM EDRS. In Counseling Psychology; v14 n6 p514-22 Nov 67 9p.

TERMS: *SELF EXPRESSION; *ADULT STUDENTS; *BEHAVIOR THEORIES; *ADULT COUNSELING; EVALUATION; RESEARCH; NONCREDIT COURSES; MEASUREMENT INSTRUMENTS; RESEARCH REVIEWS (PUBLICATIONS); UNITS OF STUDY (SUBJECT FIELDS); PARTICIPANT CHARACTERISTICS *Preference Association Survey

ABSTRACT: Shaw's theory of self-expressive styles was tested using the Preference Association Survey and 132 subjects from ten noncredit continuing education courses for adults. Of 102 convergent and discriminant predictions, 87 were confirmdd. The results are evidence for the construct validity of the self-expressive styles (Interpretive, Promotional, Humanistic, and Technological) and of the theoretical network--reconciliation of contradictions. Comparisons are made between Shaw's self-expressive styles, Spranger's ideal types, and Holland's vocational types. Shaw's theory is a reconciling position with broadly generalizable constructs and emphasis on proaction in the tradition of transactional social behaviorism. (The document includes three tables and 27 references.) (author)

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AC 000 488 JE
ED 012 405 ENTHUSIASM, INTEREST, AND LEARNING, THE RESULTS OF GAME TRAINING, A STUDY OF SIMULATION TRAINING AT THE UNIVERSITY OF COLORADO (IN Training and development journal, 21(4)/26-34, Apr 1967). Steinmetz, Lawrence L. * Patten, Ronald J. APR 67 DOCUMENT NOT AVAILABLE FROM EDRS. 8p.

TERMS: *adult learning, *educational interest, *management games, *evaluation, *participant satisfaction, industrial training,

ABSTRACT: At the University of Colorado's School of Business, an evaluation was made of gaming as an effective training device for lower ranking management and rank-and-file personnel. Participants were college students and part-time students, believed to be like persons involved in management training programs and programs for rank-and-file employees. The course was introductory accounting, decisions being made on finance and distribution functions of a business firm. Through an accounting feedback system, these decisions resulted in financial data to be used in making further decisions. Learning and attitudes were compared with those of students taught the same material by the same professors using the traditional practice set. The game participants tended to surpass their expectations, appeared to learn more, liked the course, and seemed to be influenced toward choosing a business career. The non-game participants' experience failed to meet their expectations of the course. Companies interested in training employees in mechanistic routine work would do well to consider the use of games to stimulate interest and reduce the expense of training (by reducing the number of dropouts and from the economies of the self-teaching aspects). (This article appeared in Training and development journal, monthly journal of the American Society for Training and Development, 313 Price Place, P.O. Box 5307, Madison, Wis. 53705) (eb)

AC 000 534 E CRITERIA IN LEARNING RESEARCH (Report of a conference, Bromwoods Residential
ED 011 629 Center, Washington University) (University College research publications,
9). Wientge, King M., ed * DuBois, Philip H., ed. Washington Univ.,
St. Louis, No. Dept. of Psychology. Washington Univ., St. Louis, Mo.
University College. U.S. Office of Naval Research. 66 EDRS PRICE
MF-$0.50 HC-$2.96 74p.

TERMS: *adult learning, *learning, *criteria, *measurement, *research methodology, research, performance, tables (data),

ABSTRACT: Eight conference papers discuss (1) the problem of differentiating effects of specific instruction from effects of other influences (growth, environment, self-instruction, etc.), (2) criteria for measuring change in proficiency, and (3) ways of relating such change to outside variables such as measurable characteristics of learners and instructors, and methodology. The issue of acceptable criteria (performance measures, etc.) of degrees of learning during practice is discussed. Suggestions are outlined for improving experimentation by assembling all appropriate measurements and data, using ordered hypotheses, and treating experimental classrooms as single subjects. The Bromwoods study describes the failure of residential students significantly to surpass adult evening classes in objective knowledge (beginning psychology) or in improved measured attitude. Difficulties in application of criteria in Naval maintenance training research are documented, and corrective procedures are indicated. A paper on the curvilinear relationship between knowledge and test performance argues for final examinations as the best existing indicant of learning. Other papers outline a framework for studying criterion measures and their generalizability across samples, situations, and contexts, and evaluate programed instruction among Naval trainees as a predictor of classroom learning. Document includes tables, figures, and references. (ly)

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AC 000 515 I A CLOSER LOOK AT LEVEL OF ASPIRATION AS A TRAINING PROCEDURE, A
REANALYSIS OF FRYER'S DATA (In JOURNAL OF APPLIED PSYCHOLOGY, 50(5)417-420,
1966), Locke, Edwin A. 66 4p.

TERMS: *learning processes, *aspiration level, *achievement, *feedback, performance factors, comparative analysis, task performance, educational objectives,

ABSTRACT: On the basis of a study of Morse Code learning, Fryer (1964) claimed support for his hypothesis that having subjects set levels of aspiration would lead to a higher performance level than giving knowledge of score alone. The present writer reanalyzed Fryer's data to test the hypothesis that the superiority of the level-of-aspiration procedure would depend upon the level at which the goals were set. In three out of four comparisons it was found that subjects who set high goals performed better than subjects who set low goals and better than subjects given knowledge of score alone. There were no significant differences between subjects who set low goals and subjects given knowledge of score alone. A qualification of Fryer's hypothesis, taking account of these facts, was therefore proposed. This article appeared in the JOURNAL OF APPLIED PSYCHOLOGY, Volume 50, Number 5, 1966, pages 417-420. (author/sg)

AC 000 798 E
ED 011 371 THE INFLUENCE OF SOCIAL CLIMATE ON ADULT ACHIEVEMENT, THE IMPACT OF A RESIDENTIAL EXPERIENCE ON LEARNING AND ATTITUDE CHANGE OF ADULT STUDENTS ENROLLED IN AN EVENING CREDIT CLASS (University College research publications, No.10). Wientge, King M. * Lahr, James K. Washington Univ., St. Louis, Mo. University College. 66 EDRS PRICE MF-$0.25 HC-$1.48 37p

TERMS: *evening classes, *adult learning, *residential programs, *evaluation, *lecture,

ABSTRACT: A study was designed to measure the amount of learning occurring under teaching of an adult evening class in psychology compared with a similar class taught under experimental conditions involving two residential weekends. It was expected that the experimental class would learn more and experience positive changes in attitude compared with the control class. The control class attended all sessions in the regular campus setting, while the experimental class attended ten classes on campus and spent two weekends at the university residential conference center. The same instructors were used for both groups. In order to control method of instruction as a variable, the lecture discussion method only was used in both groups. Tests were given at the start of the term to determine intelligence, subject knowledge, and attitudes. The subject and attitude tests were repeated at the end of the course. The experimental class also completed a final evaluation questionnaire. The experimental group were significantly more intelligent, but the initial tests did not show a significant difference between the two groups in attitudes or subject knowledge. Tests did not show a significant difference in the two classes in their final knowledge of the subject or in attitude change. The experimental group enjoyed the social setting at the residential center. They did not feel more learning occurred, but believed the periods between sessions were deterrent to learning. (ja)

SECONDARY TERMS: questionnaires, achievement, research, attitude tests, intelligence tests, changing attitudes, social environment, Bromwood Residential Center,

AC 000 860*I METHOD ORIENTATIONS OF ADULTS FOR PARTICIPATION IN EDUCATIVE ACTIVITIES (Ph.D. thesis). Blackburn, Donald J. Wisconsin Univ., Madison. Ford Foundation, sponsor. MAY 67 254p.

TERMS: *evaluation, *group methods, *individual methods, *participant satisfaction, * adult learning, adult characteristics,

ABSTRACT: Adult method orientations (the preferences expressed by an adult selecting a method through which to become involved in educative behavior) in 7 subject areas, and selected personal, social, and personality factors thought to influence these orientations were identified. A multi-stage, area, probability sample of adults in a Wisconsin county yielded 611 completed interviews (86 percent response). Methods were categorized as group or individual and orientations were derived from respondents' expressed preferences of methods to study topics indicated in 3 hypothetical cases within each subject area. Significant differences were found in method orientations between subject areas. Group method orientations were expressed by the majority of respondents. The proportion of group method orientations tended to increase with increased formal education and family income but decreased with advancing age. Past experience with methods tended to be positively related to method orientations. One or more relationships were observed with sex, residence, birth order, organization participation score, visiting frequency, and withdrawing tendencies. There are tables, the interview schedule, and specific method preferences. (author/aj)

SECONDARY TERMS: participant characteristics, participation, educational level, age differences, doctoral theses, research,

AC 001 526JE AN OBJECTIVE EVALUATION OF ATTITUDE CHANGE IN TRAINING, A BEFORE
ED 017 792 AND AFTER STUDY OF 12 STIMULI IN A SUPERVISORY PROGRAM. Paper
presented at the National Seminar on Adult Education Research
(Chicago, February 11-13, 1968). Abbatiello, Aurelius A. Nov 67
EDRS PRICE MF-$0.25 HC-$0.48 10p.
TERMS: *supervisory training, *changing attitudes, *participation,
*fundamental concepts, *learning processes, research, industry,

ABSTRACT: Designed to determine whether changes in attitude occurred as a result of participation in an industrial supervisory training program, this study used the Semantic Differential technique to identify relationships between content and assimilation in a learning situation. Before and after the program, 41 supervisors rated 12 concepts on a continuum between polar opposites. The concepts represented such basic ideas or conditions in the program as teach, aware, examine, self, warm, and inept. The scales covered the three major factors of evaluation, potency, and activity. An intercorrelation matrix was used to determine the degree of relatedness between scales. It was concluded that--(1) changes did take place in the participant's attitude toward the program and the negative attitudes were more amenable to change than the positive, (2) the direction of change was from extremes of polarities to a neutral position, and (3) the evaluation factor was the most sensitive indicator of change. This document appeared in TRAINING AND DEVELOPMENT JOURNAL, Volume 21, Number 11, November 1967 and was presented as a paper at the National Seminar on Adult Education Research, Chicago, February 11-13, 1968. (pt)
SECONDARY TERMS: measurement instruments, Semantic Differential,

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AC 002 846 FI STUDY OF TRAINING EQUIPMENT AND INDIVIDUAL DIFFERENCES: THE EFFECTS OF
SUBJECT MATTER VARIABLES. American Inst. for Res. in the Behav. Sci.,
Palo Alto, Calif. TR-NAVTRADEVCEN-67-C-0114 DOCUMENT NOT AVAILABLE FROM
EDRS. Available from Clearinghouse for Federal Scientific and Technical
Information, Springfield, Virginia 22151 (AD-671-842, MF $.65, HC $3.00).
70p.
TERMS: *TRAINING TECHNIQUES; *LEARNING PROCESSES; *INDIVIDUAL DIFFERENCES; *ADULT
LEARNING; *EVALUATION; RESEARCH; PERSONALITY; INTERESTS; APTITUDE; VISUAL
PERCEPTION; RETENTION; DEDUCTIVE METHODS; INDUCTIVE METHODS; STATISTICAL
DATA

ABSTRACT: This study was the third in a series of research projects to determine if learning might be enhanced by using instructional methods differing in design and use according to learner characteristics. Within each of two types of learning situations (the Transportation Technique, a kind of logico-mathematical procedure and a visual form discrimination task--Aircraft Recognition), two courses were developed, one reflecting an inductive teaching approach and the other a deductive method. Each of the four courses was administered to between 55 and 60 Navy enlisted men. For each subject 28 measures of aptitudes, interests, and personality variables were obtained. The main finding produced by analysis of variance was the significant second order interaction among all three independent variables. Results of this study strongly supported the existence of learning styles, and suggest that multitrack instruction based on learning styles might be a cost-effective way of enhancing learning. Those individual difference measures which interacted with method and content were all noncognitive--an indication that learning styles may also be independent of specific aptitude or ability traits. (For the second study in this series, see AC 001 224 FI.) (The document includes 12 tables and figures and 81 references.) (author/ly)

AC 002 417 JE WHAT DOES THE EYE SEE--THE EAR HEAR? Griessman, B. Eugene DOCUMENT NOT AVAILABLE FROM EDRS. In Journal of Cooperative Extension; v6 n3 p135-42 Fall 1968 8p.

TERMS: *PERCEPTION; *MOTIVATION; *COMMUNICATION (THOUGHT TRANSFER); *EVALUATION; RESEARCH; RURAL EXTENSION; MEMORY; FARMERS; CONSERVATION *Mississippi

ABSTRACT: Accumulating scientific evidence supports the position that, in general, persons expose themselves to, perceive, and remember messages in a selective manner. The 1965 Mississippi investigation reported in this paper tends to bear out these conclusions. Dominant community norms and attitudes seem significantly related to the perception and retention of forest fire prevention messages. Moreover, the relationship between incendiarism (the winter burning of woods to hasten the spring greening of the grasses) and perception-retention is interpreted as an inverse relationship. Perception-retention rates in this study were found to be lower in the community with the higher incendiary rate. However, the selective processes should be viewed, not as dead ends, but as avenues through which messages can be mediated. Caution is urged for change agents who tend to rely too heavily on their message-sending ability. They cannot assume that the message will be understood and remembered as they might wish it to be. (Two tables and eight references are included.) (author/ly)

AC 002 561 I BIBLIOGRAPHY OF CREATIVITY STUDIES AND RELATED AREAS. Razik, Taher A. New York State Univ., Buffalo Creative Education Foundation, Buffalo, N.Y., sponsor DOCUMENT NOT AVAILABLE FROM EDRS. Available from The University Bookstore, Norton Hall, State University of New York at Buffalo, Buffalo, N.Y. 14214. 65 450p.

TERMS: *BIBLIOGRAPHIES; *CREATIVITY; *CREATIVITY RESEARCH; *PHYCHOLOGICAL CHARACTERISTICS; *MEASUREMENT TECHNIQUES; PROBLEM SOLVING; HEREDITY; ENVIRONMENT; MOTIVATION; AGE; TESTS

ABSTRACT: The present bibliography, on creativity, designed for both the scholar and the general reader, includes some 4,176 titles published from 1744 to December 1964, as well as many unpublished theses, dissertations, and speeches. Materials from French, Italian, and Russian sources are included, with English translations whenever possible. Titles are arranged under four main headings--Nature (creative approach, definition of the creative process or activity, genius, imagination, ingenuity, innovation, intuition, invention or discovery, and problem solving); Nurture (heredity, environment, age, development and traini incentives and motivation, and inhibitors); Measurement (criteria, personal and intellectual characteristics, theoretical analyses, and tests); and Miscellaneous. There are author and title indexes. An annotated publication of these works and current listings are planned. (aj

AC 002 827 JI DIFFERENTIAL PARTICIPATION PATTERNS OF ADULTS OF LOW AND HIGH EDUCATIONAL ATTAINMENT. Douglah, Mohammad; Moss Gwenna DOCUMENT NOT AVAILABLE FROM EDRS. In Adult Education; v18 n4 p247-59 Sum 1968 13p.

TERMS: *PARTICIPANT CHARACTERISTICS; *ADULT EDUCATION PROGRAMS; *ACADEMIC ACHIEVEMENT; *PARTICIPATION; SOCIALIZATION; ECONOMIC STATUS; SOCIAL RELATIONS; AGE DIFFERENCES; SURVEYS

ABSTRACT: The influence of selected positional and psychological factors on the adult education participation of 274 adults of low educational attainment (less than 12 years of schooling) and high educational attainment (more than 12 years of schooling) were studied. Analysis of data from a survey conducted in Columbia County, Wisconsin, showed that participation among adults of low education was significantly related to age, employment status, income, family status, and withdrawing tendencies. Only the personality trait of social skills was significantly related to participation among 128 adults of high education. It was concluded that participation within high and low educational levels cannot be accounted for by a common set of factors. (author)

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AC 002 717 JI WHAT IS AN ATTITUDE? Culbertson, Hugh M. DOCUMENT NOT AVAILABLE FROM EDRS. In Journal of Cooperative Extension; v6 n2 p79-84 Sum 1968 6p.

TERMS: *ATTITUDES; *RURAL EXTENSION; *EDUCATIONAL PSYCHOLOGY; *EVALUATION CRITERIA

ABSTRACT Attitudes are known to involve an attitude object, a set of beliefs concerning the object, and a tendency to accept or reject the object. However, extension educators might profitably look at other dimensions of attitude: the intensity of feeling toward the attitude object; the amount of information which the attitude holder has to back up and interpret his beliefs; and the degree of resistance of the attitude to change. (ly)

AC 002 716 JI A PROJECTIVE STUDY OF ATTITUDES TOWARD CONTINUING EDUCATION. Rubin, Irwin M.; Morgan, Homer G. DOCUMENT NOT AVAILABLE FROM EDRS. 8p.; reprinted from Journal of Applied Psychology, v51 n6 p453-60 1967

TERMS: *EDUCATIONAL ATTITUDES; *ENGINEERS; *PROFESSIONAL CONTINUING EDUCATION; *EVALUATION; RATING SCALES; INDIVIDUAL CHARACTERISTICS; MOTIVATION; PSYCHOLOGICAL CHARACTERISTICS; CORRELATION; EDUCATIONAL PSYCHOLOGY; MEASUREMENT INSTRUMENTS; RESEARCH

ABSTRACT: A projective instrument aimed at measuring attitudes toward continuing education described a hypothetical research and development engineer as having (1) obtained an M.S. degree in a continuing education program, (2) completed seven courses, or (3) completed only one course since receiving his B.S. The three versions were randomly given to 312 engineers in a government research and development center. Research and development engineers did not perceive any significant difference between obtaining a degree or taking several courses in a continuing education program. However, obtaining a degree or taking several courses were both seen as having more positive attributes than taking only one course, were perceived as being associated with more management potential, higher ambition, and greater professionalism, and as keeping an engineer more up to date. Motivational and other implications of the study were noted. (The document includes two tables, 13 references, and the median score profiles.) (author/ly)

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AC 002 582MI INFLUENCE OF LEARNER'S CHOICE ON THE EFFECTIVENESS OF ALTERNATE MODES OF PRESENTATION OF LEARNING MATERIAL. James, Newton Elder Minnesota Univ., Minneapolis DOCUMENT NOT AVAILABLE FROM EDRS. Available from University Microfilms, 300 Zeeb Rd., Ann Arbor, Michigan, 48106 (Order No. 58-2153, $2.40). 58 182p. Ph.D. thesis.

TERMS: *PREFERENCE; *TEACHING METHODS; *LEARNING PROCESSES; *EFFECTIVE TEACHING; READING; LECTURE; RESEARCH

ABSTRACT: To determine whether individuals who are given learning material by the mode of their preference learn better than those given the material in a mode unlike their choice, 500 basic airmen were pretested on aviation information, queried as to their preferred method of receiving learning material--reading, lecture, or no preference--and divided into groups according to their choices. Half of each group was given a reading presentation and half a tape-recorded lecture of identical material. All subjects were again tested. Findings showed the reading method to be generally superior. A statistically significant interaction between choice and mode of presentation was noted, but detailed comparison of specific groups revealed that the learning of those receiving the material in the preferred mode was not significantly different from that of other groups. Most variation in scores on the posttest could be attributed to differences in general intelligence. In comparison with other factors affecting the learning situation, whether or not a person gets his favored mode of presentation appears to be of little importance. However, an effort should be made to identify the specific component of the statistically significant interaction found in this experiment. (author/aj)

AC 002 768 JI EFFECTS OF TUITION PAYMENT AND INVOLVEMENT ON BENEFIT FROM A MANAGEMENT DEVELOPMENT PROGRAM. Gruenfeld, L.W. DOCUMENT NOT AVAILABLE FROM EDRS. In Journal of Applied Psychology; v50 n5 p396-9 1966 4p.

TERMS: *MOTIVATION; *PARTICIPANT INVOLVEMENT; *TUITION; *MANAGEMENT DEVELOPMENT; *EDUCATIONAL BENEFITS; EVALUATION; RESEARCH *Allport Vernon Scale of Values

ABSTRACT: This study investigated the effects of participants' investments of tuition, time, and effort on benefit from a management development program. Measures of benefit consisted of a summated rating scale and the economic scale of the Allport Vernon Scale of Values (AVSV). Subjects were 99 industrial executives in a five-year program. Those who paid part of their tuition, spent relatively more time in the program, and found the program difficult, benefited more. It was concluded that programs which do not require commitment and effort are not likely to achieve their immediate value objectives. (Tables are included.) (author)

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AC 001 804 E MOTIVATION TO LEARN. Kirchner, Corinne NOT AVAILABLE FROM EDRS Available from Adult Education Association of the U.S.A., 1225 19th St., N.W., Washington, D.C. 20036 21p. Chapter 3 in AN OVERVIEW OF ADULT EDUCATION BY Edmund deS. Brunner And Others 59

TERMS: *LEARNING MOTIVATION; *ADULT LEARNING; *INDIVIDUAL NEEDS; *SELF ACTUALIZATION; PSYCHOEDUCATIONAL PROCESSES; ACADEMIC ASPIRATION; PSYCHOLOGICAL TESTING; SOCIAL INFLUENCES; RESEARCH REVIEWS (PUBLICATIONS)

ABSTRACT

Understanding the connection between motivation and education is crucial for the achievement of adult educational goals. In social psychological terms, for each individual the learning process proceeds selectively in the context of motivational forces. With increasing age and ego development, basic motivational forces are socially defined, channeled and ramified, and new motivations are learned. Sociologically, with increasing societal development, this social learning is institutionalized into a complex and pervasive educational system. Adult education, therefore, must deal with well-developed, subjectively meaningful motivations in relation to complex social influences and social values. Some studies illustrate the mechanisms by which motivation and learning are related, such as levels of aspiration, and some of the social and psychological factors which may best account for differential motivations, such as previous formal education, socioeconomic status, and personality configurations. (sg)

AC 001 805 AE ATTITUDES. Kirchner, Corinne; Wilder, David DOCUMENT NOT AVAILABLE FROM EDRS. 14p.; Chapter 4 in An Overview of Adult Education Research, edited by Edmund deS. Brunner And Others. 59

TERMS: *ATTITUDES; *CHANGING ATTITUDES; *ADULT LEARNING; *RESEARCH REVIEWS (PUBLICATIONS); BEHAVIOR; EDUCATIONAL BACKGROUND; CULTURAL CONTEXT; ENVIRONMENTAL INFLUENCES; VALUES; MOTIVATION ;INDIVIDUAL DIFFERENCES; COMMUNICATION (THOUGHT TRANSFER); RESEARCH

ABSTRACT

The expansion of attitude research has been concurrent with the growth of the adult education movement. Most attitude research to date has focused on attitudes toward controversial issues but recent formulations of the nature of attitudes emphasize that they exist in functional interdependence with other attitudinal, motivational, and value components. The strength of an attitude and the needed external conditions for it to be expressed in action can be determined only by research. Attitudes have other dimensions than positive or negative--such as behavior, information level, time perspective, direction, and intensity. They differ systematically from one educational level to another. Attitudinal change does not rest on the basis of information itself. A more significant determinant is the nature and degree of the adult's ego-involvement. Research on attitude change has been structured in terms of the communicator, the stimulus or content, the audience predispositions, and the effects. In addition to these communications learning factors, the dimensions and correlates of attitudes should be considered. Significant studies are not being done with regard to group as well as individual correlates of attitudes. (sg)

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AC 001 728 E
ED 019 558

INITIATION OF STRUCTURE, CONSIDERATION, AND TASK PERFORMANCE IN INTERCULTURAL DISCUSSION GROUPS. Anderson, Lynn R. Illinois Univ., Urbana. Group Effectiveness Res. Lab. TR-30 Advanced Research Projects Agency, sponsor. ARPA-454 NR-177-472 Nonr-1834(36) Apr 66 EDRS PRICE MF-$0.25 HC-$1.32 31p.

TERMS: *discussion groups, *leadership styles, *behavior rating scales, group structure, cultural differences, group behavior, self evaluation, task performance, intercultural programs, graduate students, role perception, behavior standards, heterogeneous grouping, Anglo Americans, Indians,

ABSTRACT

Ratings of the leader's Initiation of Structure and Consideration were obtained from members of 36 intercultural discussion groups of one American and one Indian graduate student plus an American leader. Ratings of Group Atmosphere, Esteem for Leader, and Leader Effectiveness were also obtained after each group had completed an intercultural negotiation task and also after completing a group creativity task. Results showed that on both tasks the American and Indian members' Esteem for Leader and Group Atmosphere ratings were positively correlated with the leader's considerate behavior but were not related to the leader's structuring behavior. The leader's Effectiveness as rated by Americans was positively correlated with both Consideration and Initiation of Structure scores. When rated by the Indian subjects, the leader's Effectiveness was correlated only with his Consideration score. The leader's self ratings ofConsideration and Initiation of Structure both were positively correlated with his own rating of the Group Atmosphere and with his rating of his own Effectiveness. The group performance scores were unrelated to Consideration ratings. However, group performance was positively related to the Initiation of Structure ratings, but this finding was specific to the culture and the task. The results were discussed in terms of differences in "role expectations" between the two cultural groups. (author)

AC 000 127 E PURSUIT ROTOR PERFORMANCE, 1. EFFECTS OF REINFORCING THE LONGER INTERVALS OF CONTINUOUS TRACKING WITHIN EACH TRIAL. Sheldon, Richard W. * Bjorklund, John F. George Washington Univ., Washington, D.C. HumRRO TR-66-11 U.S. Dept. of the Army. Chief of Research and Development DA-44-188-ARO-2 AD-638-015 Jun 66 DOCUMENT NOT AVAILABLE FROM EDRS.

TERMS: *reinforcement, *retention, *time factors (learning), *tracking, *enlisted men, psychomotor skills, military training,

ABSTRACT: To determine whether selective reinforcement of pursuit rotor performance facilitates acquisition of skill and promotes its retention, five groups of subjects were individually trained for ten sessions of 15 trials each. Selective reinforcement of longer than average target contacts was introduced for one group of subjects during Sessions six and seven and for another during Sessions four to seven. Continuous reinforcement of target contacts was introduced for two other groups. A control group received no reinforcement. Dependable improvements in time-on-target scores were obtained for all four sessions, but the superior performances were not maintained when reinforcement was withdrawn. The results suggest that this improvement as a function of feedback was attributable to motivational rather than learning or informational effects. This document, AD 638 015, is available from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151. Microfiche $.65. Hardcopy $3.00. 24 pages. (author)

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AC 002 092JI THE CREATIVE PROCESS (In JOURNAL OF CREATIVE BEHAVIOR, 2(1)/63-70. Win 1967-68). Turner, Thomas B. 67 8p.

TERMS: *creativity, *thought processes, *research, *imagination, *association (psychological), originality, evaluation, AC Test of Creative Ability,

ABSTRACT: Responses to the AC Test of Creative Ability, Part 5 (listing possible uses for five common objects such as a ruler, hammer, pencil, and broom) were used to explain the creative process. Frequency groups of uses were formed and an analysis was made of the different categories the responses fell into. A strong communality of associations, based on past sensory experience and imagination, occurred in the test, and this tendency was dissipated only when subjects were able to shatter the periphery of reality associations attached to the stimulus word. Only one subject showed a decided ability to shatter these reality associations. Using his research notes as a comparison, the author developed an explanation of creative thinking which encompasses the patterns in the data collected in the test. Further use of the underlying system of analysis on this test or others may aid in distinguishing extremely creative people in test populations. (The document includes four references.) This document appeared in the JOURNAL OF CREATIVE BEHAVIOR, Volume 2, Number 1, Winter 1967-68. (author/ly)

AC 000 774 C THE LITERATURE OF CREATIVITY. PART 2. (IN The Journal of Creative
Behavior, 1(2)/191-240, Spr 1967). Parnes, Sidney J. Spr 67
50p. (Abstract filed)
Terms: *creativity, *creative thinking, *creativity research, *research
reviews, *environmental influences

Abstract: Cites a variety of studies concerned with environmental conditions affecting creativity -- (1) research studying the effects on creative behavior of various group-conditions, particularly in an industrial enviornment, (2) experiments dealing with the influence of specific inhibiting factors, (3) research dealing with environmental conditions affecting creative behavior in school or societal settings. (sg)

AC 000 439 JC THE LITERATURE OF CREATIVITY. Part 1 (IN The journal of creative
behavior 1(1)/52-109, Win 1967). Parnes, Sidney J. * Brunelle,
Eugene A. WIN 67 58p.
TERMS: *abstracts, *annotated bibliographies, *creativity research,
*research reviews,

ABSTRACT: In order to cope with the mushrooming literature on creativity, this journal plans to provide a current and cumulative, annotated, subject-index bibliography in the field, beginning with the July 1967 issue. As a start in this direction, creativity research to date is evaluated and areas of further investigation are indicated. The section concludes with abstracts of doctoral dissertations on creativity, since 1960, also references, a bibliography of bibliographies on creativity, and an annotated list of books on creative intelligence suggestive of current trends. (aj)

AC 002 174JI BEHAVIORAL CORRELATES OF MENTAL GROWTH, BIRTH TO THIRTY-SIX YEARS (In AMERICAN PSYCHOLOGIST, 23(1)/1-17, Jan 68). Bayley, Nancy Jan 68
DOCUMENT NOT AVAILABLE FROM EDRS.

TERMS: *behavior patterns, *mental development, *age differences, *sex differences, research, longitudinal studies, personality development, mental health, intelligence, verbal ability, age groups, nonverbal ability, parent influence, statistical data, analysis of variance, Berkeley Growth Study, California, Wechsler Adult Intelligence Scale,

ABSTRACT: The most recent phase of the longitudinal Berkeley Growth Study assessed relationships between mental development from birth to age 36, and emotions, attitudes, and typical reaction tendencies. Interviews and tests involved 54 individuals whose mental and physical development had been evaluated periodically throughout their lifetimes. Separate correlations for males and for females were made between first year vocalization scores and intelligence quotients through age 36, personality variables and Wechsler Adult Intelligence Scale (WAIS) verbal and performance scores at age 36, personality scores and other performance variables at ages 16 and 36, adolescent behavior patterns and verbal scores at five ages from infancy to age 36, verbal scores at one through 36 years of age and seven types of behavior during infancy (10 to 36 months), and WAIS scores at age 36 and maternal behavior experienced during infancy. Findings reflected stability in several personality variables and mental abilities. Moreover, female abilities stabilized earlier than those of males, and test scores for boys were relatively far more bound to certain behavior variables (adjusted or introspective versus maladjusted or hostile). The document includes 21 figures and 22 references. It appeared in the AMERICAN PSYCHOLOGIST, Volume 23, Number 1, January 1968. 17 pages. (ly)

## C. GENERAL BIBLIOGRAPHIES

AC 001 396 E RESEARCH AND INVESTIGATIONS IN ADULT EDUCATION. ERIC Clearinghouse
ED 012 877 on Adult Education, Syracuse, N.Y. SUM 67 EDRS PRICE MF-$0.50 HC-$2.64
66p.

TERMS: *adult education, *research reviews, adult learning, program administration, program planning, teaching methods, group instruction,

ABSTRACT: The 177 reports comprising this research review deal with such areas and topics as learning-related abilities, interests, and motives, program planning and administration, learning formats and environments, instructional methods and techniques, adult basic education, vocational education, management and the professions, institutional sponsors (chiefly in extension education), and research methodology. As stipulated by the Educational Resources Information Center (ERIC) of the U.S. Office of Education, each report includes the title, author, standard bibliographic citation, and a signed abstract summarizing purpose, methods, and findings in about 200 words. Except for reports from standard journals and other published sources, most items listed can be purchased in microfilm, microfiche, or hard copy reproduction either from University Microfilms, Inc., or from the ERIC Document Reproduction Center (EDRS). (This document was also published in Adult education, Volume 17, number four, Summer 1967. Adult education is issued quarterly by the Adult Education Association of the U.S.A., 1225 Nineteenth St., N.W., Washington, D.C. 20036) (eb)

SECONDARY TERMS: individual instruction, training techniques, adult educators, research, adult vocational education, adult basic education, management development, professional continuing education, rural extension, university extension, vocational training, correspondence study, participation,

AC 000 010E GRADUATE RESEARCH IN ADULT EDUCATION AND CLOSELY RELATED FIELDS AT
ED 010 681 FLORIDA STATE UNIVERSITY, 1950-1966. Carpenter, William L. * Kapoor,
Sudarshan. Florida State Univ., Tallahassee. JUN 66 EDRS PRICE
MF-$0.50 HC-$3.44 86p.

TERMS: *annotated bibliographies, *adult learning, *adult education, educational research, abstracts, educational methods, programs,

ABSTRACT: In this compilation of abstracts of 78 doctoral dissertations and master's theses prepared at Florida State University in adult education and related fields, 48 percent come from the field of education (education, home and family life, and social welfare), 6 percent from psychology and sociology, and the remainder from other departments. Research reports are described briefly as to purpose and methods, with a summary of findings. Areas covered are--agency and program analysis and evaluation, program development and planning, community development and community services, adult education practices, methods and techniques, the adult educator, clientele analysis, and adult learning. (fh)

SECONDARY TERMS: planning, program evaluation, community development, adult characteristics, adult educators, Florida State Univ.,

AC 001 086 E RESEARCH STUDIES WITH IMPLICATIONS FOR ADULT EDUCATION, MOUNTAIN-PLAINS REGION, 1945-1966. Burrichter, Arthur. * Jensen, Glenn. Wyoming Univ.
ED 012 413 Dept. of Adult Educ. and Instructional Services. MAR 67 EDRS PRICE MF-$0.50 HC-$3.36 84p,
TERMS: *adult education, *annotated bibliographies, research, adult learning, higher education, university extension, public school

ABSTRACT: This compilation of abstracts of adult education research studies conducted in New Mexico, Arizona, Nevada, Utah, Idaho, Wyoming, and Colorado covers college and university adult education, public school adult programs (mainly secondary and adult basic education), vocational and technical training (including industrial inservice training), adult learning and creativity and appropriate testing, migrant adult education, civil defense education, educational methods and media, program administration, socioeconomic influences, the need for research personnel, and the needs, interests, and other characteristics of various clientele groups (rural dwellers, veterans, the aged, welfare recipients, etc.). Criteria for judging the significance and suitability of these studies included (1) studies completed since 1945, (2) specific studies carried on in each state and distinctly pertaining to that state, and (3) studies done in a given state, involving people of projects outside the state where the findings would apply to the entire field of adult education. Each abstract contains the purposes and methods used and a summary of the findings. (ly)

SECONDARY TERMS: adult education, adult basic education, leadership training, rural extension, participation, vocational training, professional training, adult educators, educational interest, doctoral theses, masters theses, migrant adult education, participant characteristics, educational methods, womens education, educational needs,

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| **OTHER** | | | |
| Adult Education Information Services: Establishment of a Prototype System for a National Adult Education Library. 3 Parts. (Library of Continuing Education of Syracuse University) | | | |
| Adult Education Periodical Holdings | ED 014 022 | $0.25 | $0.76 |
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| A Model Information System for the Adult Education Profession, by Roger DeCrow | ED 015 412 | $0.25 | $1.00 |
| Research and Investigations in Adult Education (Summer, 1967 issue of *Adult Education)* | ED 012 877 | $0.50 | $2.64 |
| Research and Investigation in Adult Education, 1968 Annual Register (Adult Education Association of the U.S.A.) | | | |

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